

# HARVARD BIOSCIENCE INC

## FORM 10-Q (Quarterly Report)

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM 10-Q**

**Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the quarterly period ended March 31, 2017

**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 001-33957

**HARVARD BIOSCIENCE, INC.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**04-3306140**  
(IRS Employer  
Identification No.)

**84 October Hill Road, Holliston, MA**  
(Address of Principal Executive Offices)

**01746**  
(Zip Code)

**(508) 893-8999**

(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  NO

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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).  YES  NO

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

As of May 2, 2017, there were 34,618,897 shares of common stock, par value \$0.01 per share, outstanding.

**HARVARD BIOSCIENCE, INC.**  
**FORM 10-Q**  
**For the Quarter Ended March 31, 2017**  
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## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements.

**HARVARD BIOSCIENCE, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(Unaudited, in thousands, except share and per share data)

	March 31, 2017	December 31, 2016
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 4,599	\$ 5,596
Accounts receivable, net of allowance for doubtful accounts of \$559 and \$611, respectively	15,479	15,746
Inventories	20,282	19,955
Other receivables and other assets	4,761	4,175
Total current assets	45,121	45,472
Property, plant and equipment, net	4,268	4,296
Deferred income tax assets	1,179	1,157
Amortizable intangible assets, net	17,070	17,471
Goodwill	38,398	38,032
Other indefinite lived intangible assets	1,216	1,209
Other assets	144	128
Total assets	\$ 107,396	\$ 107,765
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities:		
Current portion, long-term debt	\$ 2,722	\$ 2,372
Accounts payable	5,835	6,196
Deferred revenue	598	500
Accrued income taxes	99	223
Accrued expenses	4,324	4,550
Other liabilities - current	478	760
Total current liabilities	14,056	14,601
Long-term debt, less current installments	10,931	11,374
Deferred income tax liabilities	6,460	6,417
Other long term liabilities	3,234	3,177
Total liabilities	34,681	35,569
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, par value \$0.01 per share, 5,000,000 shares authorized	-	-
Common stock, par value \$0.01 per share, 80,000,000 shares authorized; 42,364,404 and 42,186,827 shares issued and 34,618,897 and 34,441,320 shares outstanding, respectively	418	418
Additional paid-in-capital	215,842	215,134
Accumulated deficit	(117,168)	(116,030)
Accumulated other comprehensive loss	(15,709)	(16,658)
Treasury stock at cost, 7,745,507 common shares	(10,668)	(10,668)
Total stockholders' equity	72,715	72,196
Total liabilities and stockholders' equity	\$ 107,396	\$ 107,765

See accompanying notes to unaudited consolidated financial statements.

**HARVARD BIOSCIENCE, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
(Unaudited, in thousands, except per share data)

	Three Months Ended March 31,	
	2017	2016
Revenues	\$ 24,156	\$ 26,963
Cost of revenues (exclusive of items shown separately below)	12,657	14,018
Gross profit	<u>11,499</u>	<u>12,945</u>
Sales and marketing expenses	5,048	5,102
General and administrative expenses	5,206	5,948
Research and development expenses	1,285	1,425
Restructuring charges	-	11
Amortization of intangible assets	599	680
Total operating expenses	<u>12,138</u>	<u>13,166</u>
Operating loss	<u>(639)</u>	<u>(221)</u>
Other (expense) income:		
Foreign exchange	(143)	(9)
Interest expense	(162)	(164)
Interest income	-	1
Other expense, net	(99)	(50)
Other expense, net	<u>(404)</u>	<u>(222)</u>
Loss before income taxes	(1,043)	(443)
Income tax expense	23	193
Net loss	<u>\$ (1,066)</u>	<u>\$ (636)</u>
Loss per share:		
Basic loss per common share	<u>\$ (0.03)</u>	<u>\$ (0.02)</u>
Diluted loss per common share	<u>\$ (0.03)</u>	<u>\$ (0.02)</u>
Weighted average common shares:		
Basic	<u>34,579</u>	<u>34,013</u>
Diluted	<u>34,579</u>	<u>34,013</u>
Comprehensive loss:		
Net loss	\$ (1,066)	\$ (636)
Foreign currency translation adjustments	942	616
Derivatives qualifying as hedges, net of tax:		
Gain (loss) on derivative instruments designated and qualifying as cash flow hedges	4	(36)
Amounts reclassified from accumulated other comprehensive loss to net loss	3	13
Total comprehensive loss	<u>\$ (117)</u>	<u>\$ (43)</u>

See accompanying notes to unaudited consolidated financial statements.

**HARVARD BIOSCIENCE, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(Unaudited, in thousands)

	Three Months Ended	
	March 31,	
	2017	2016
Cash flows from operating activities:		
Net loss	\$ (1,066)	\$ (636)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock compensation expense	863	754
Depreciation	306	385
Amortization of catalog costs	9	3
(Recovery) provision for allowance for doubtful accounts	(15)	37
Amortization of intangible assets	599	680
Amortization of deferred financing costs	19	28
Deferred income taxes	-	4
Changes in operating assets and liabilities:		
Decrease (increase) in accounts receivable	410	(463)
(Increase) decrease in inventories	(300)	211
Increase in other receivables and other assets	(526)	(463)
Decrease in trade accounts payable	(320)	(2,679)
Decrease in accrued income taxes	(110)	(77)
(Decrease) increase in accrued expenses	(571)	1,481
Increase in deferred revenue	92	32
Decrease in other liabilities	-	(23)
Net cash used by operating activities	(610)	(726)
Cash flows used in investing activities:		
Additions to property, plant and equipment	(198)	(201)
Additions to catalog costs	(30)	(4)
Net cash used in investing activities	(228)	(205)
Cash flows used in financing activities:		
Proceeds from issuance of debt	1,000	1,000
Repayments of debt	(1,113)	(2,613)
Net taxes paid for issuance of common stock	(155)	(113)
Net cash used in financing activities	(268)	(1,726)
Effect of exchange rate changes on cash	109	88
Decrease in cash and cash equivalents	(997)	(2,569)
Cash and cash equivalents at the beginning of period	5,596	6,744
Cash and cash equivalents at the end of period	\$ 4,599	\$ 4,175
Supplemental disclosures of cash flow information:		
Cash paid for interest	\$ 164	\$ 194
Cash paid for income taxes, net of refunds	\$ 333	\$ 171

See accompanying notes to unaudited consolidated financial statements.

**HARVARD BIOSCIENCE, INC.**  
**NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS**

**1. Basis of Presentation and Summary of Significant Accounting Policies**

***Basis of Presentation***

The unaudited consolidated financial statements of Harvard Bioscience, Inc. and its wholly-owned subsidiaries (collectively, “Harvard Bioscience” or the “Company”) as of March 31, 2017 and for the three months ended March 31, 2017 and 2016 have been prepared by the Company pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles (“U.S. GAAP”) have been condensed or omitted pursuant to such rules and regulations. The December 31, 2016 consolidated balance sheet was derived from audited financial statements, but does not include all disclosures required by U.S. GAAP. However, the Company believes that the disclosures are adequate to make the information presented not misleading. These unaudited consolidated financial statements should be read in conjunction with the consolidated financial statements and the notes thereto included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which was filed with the SEC on March 17, 2017.

In the opinion of management, all adjustments, which include normal recurring adjustments necessary to present a fair statement of financial position as of March 31, 2017, results of operations and comprehensive loss and cash flows for the three months ended March 31, 2017 and 2016, as applicable, have been made. The results of operations for the three months ended March 31, 2017 are not necessarily indicative of the operating results for the full fiscal year or any future periods.

***Summary of Significant Accounting Policies***

The accounting policies underlying the accompanying unaudited consolidated financial statements are those set forth in Note 2 to the consolidated financial statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2016, which was filed with the SEC on March 17, 2017.

**2. Recently Issued Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, “*Revenue from Contracts with Customers*,” a new accounting standard that provides for a comprehensive model to use in the accounting for revenue arising from contracts with customers that will replace most existing revenue recognition guidance within generally accepted accounting principles in the United States. Under this standard, revenue will be recognized 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. The Company expects to adopt this standard as of January 1, 2018 using the modified retrospective approach. The Company intends to complete a comprehensive assessment of its contracts in 2017 concerning any unique customer contract terms or transactions that could have implications to the timing of revenue recognition under the new guidance. The Company expects this undertaking will be complete in the second half of 2017.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which is intended to improve financial reporting about leasing transactions. The update requires a lessee to record on the balance sheet the assets and liabilities for the rights and obligations created by lease terms of more than 12 months. The update is effective for fiscal years beginning after December 15, 2018. The Company is evaluating the requirements of this guidance and has not yet determined the impact of the adoption on its consolidated financial position, results of operations and cash flows, however, assets and liabilities will increase upon adoption for right-of-use assets and lease liabilities. The Company’s future commitments under lease obligations are summarized in Note 10.

***Recently Adopted Accounting Pronouncements***

In March 2016, the FASB issued ASU 2016-09, Compensation – Stock Compensation (Topic 718): *Improvements to Employee Share-Based Payment Accounting*, which simplifies the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows.

The standard requires an entity to recognize all excess tax benefits and tax deficiencies as income tax benefit or expense in the income statement as discrete items in the reporting period in which they occur, and such tax benefits and tax deficiencies are not included in the estimate of an entity’s annual effective tax rate, applied on a prospective basis. Further, the standard eliminates the requirement to defer the recognition of excess tax benefits until the benefit is realized through a reduction to taxes payable. All excess tax benefits previously unrecognized, along with any valuation allowance, should be recognized on a modified retrospective basis as a cumulative adjustment to retained earnings as of the date of adoption. Under ASU 2016-09, an entity that applies the treasury stock method in calculating diluted earnings per share is required to exclude excess tax benefits and deficiencies from the calculation of assumed proceeds since such amounts are recognized in the income statement. Excess tax benefits should also be classified as operating activities in the same manner as other cash flows related to income taxes on the statement of cash flows, as such excess tax benefits no longer represent financing activities since they are recognized in the income statement, and should be applied prospectively or retrospectively to all periods presented.

The Company adopted ASU 2016-09 as of January 1, 2017. The Company recorded a cumulative increase in retained earnings of \$0.5 million at the beginning of the first quarter of 2017 with a corresponding increase in deferred tax assets related to the prior years' unrecognized excess tax benefits. An equal amount of valuation allowance was also recorded against these deferred tax assets with a corresponding decrease to retained earnings resulting in a net impact of \$0. In addition, tax deficiencies related to vested restricted stock units and canceled stock options during the first quarter of 2017 have been recognized in the current period's income statement.

ASU 2016-09 also allows an entity to elect as an accounting policy either to continue to estimate the total number of awards for which the requisite service period will not be rendered or to account for forfeitures for service based awards as they occur. An entity that elects to account for forfeitures as they occur should apply the accounting change on a modified retrospective basis as a cumulative effect adjustment to retained earnings as of the date of adoption. The Company elected as an accounting policy to account for forfeitures for service based awards as they occur, and as a result, the Company recorded a cumulative effect adjustment of \$0.1 million to reduce retained earnings with a corresponding increase in additional paid in capital related to the prior years' stock-based compensation expense as required under the modified retrospective approach. The tax effect of this adjustment, which included the impact of a valuation allowance was immaterial.

### 3. Accumulated Other Comprehensive Loss

Changes in each component of accumulated other comprehensive loss, net of tax are as follows:

(in thousands)	Foreign currency translation adjustments	Derivatives qualifying as hedges	Defined benefit pension plans	Total
<b>Balance at December 31, 2016</b>	\$ (14,200)	\$ -	\$ (2,458)	\$ (16,658)
Other comprehensive income before reclassifications	942	4	-	946
Amounts reclassified from AOCI	-	3	-	3
Other comprehensive income	942	7	-	949
<b>Balance at March 31, 2017</b>	<u>\$ (13,258)</u>	<u>\$ 7</u>	<u>\$ (2,458)</u>	<u>\$ (15,709)</u>



**4. Goodwill and Other Intangible Assets**

Intangible assets consist of the following:

	March 31, 2017		December 31, 2016		Weighted Average Life (a)
	Gross	Accumulated Amortization	Gross	Accumulated Amortization	
(in thousands)					
Amortizable intangible assets:					
Existing technology	\$ 15,287	\$ (12,020)	\$ 15,082	\$ (11,710)	6.8 Years
Trade names	7,436	(3,617)	7,379	(3,479)	7.8 Years
Distribution agreements/customer relationships	23,136	(13,228)	22,976	(12,862)	8.7 Years
Patents	207	(131)	204	(119)	1.9 Years
Total amortizable intangible assets	<u>46,066</u>	<u>\$ (28,996)</u>	<u>45,641</u>	<u>\$ (28,170)</u>	
Indefinite-lived intangible assets:					
Goodwill	38,398		38,032		
Other indefinite-lived intangible assets	1,216		1,209		
Total goodwill and other indefinite-lived intangible assets	<u>39,614</u>		<u>39,241</u>		
Total intangible assets, gross	<u>\$ 85,680</u>		<u>\$ 84,882</u>		

(a) Weighted average life as of March 31, 2017.

The change in the carrying amount of goodwill for the three months ended March 31, 2017 is as follows:

	(in thousands)
Balance at December 31, 2016	\$ 38,032
Effect of change in currency translation	366
Balance at March 31, 2017	<u>\$ 38,398</u>

*Amortization of intangible assets*

Intangible asset amortization expense was \$0.6 million and \$0.7 million for the three months ended March 31, 2017 and 2016, respectively. Amortization expense of existing amortizable intangible assets is currently estimated to be \$2.4 million for the year ending December 31, 2017, \$2.3 million for the year ending December 31, 2018, \$2.1 million for the year ending December 31, 2019, \$2.1 million for the year ending December 31, 2020 and \$2.1 million for the year ending December 31, 2021.

**5. Inventories**

Inventories consist of the following:

	March 31, 2017	December 31, 2016
(in thousands)		
Finished goods	\$ 9,686	\$ 9,340
Work in process	900	823
Raw materials	9,696	9,792
Total	<u>\$ 20,282</u>	<u>\$ 19,955</u>

**6. Property, Plant and Equipment**

As of March 31, 2017 and December 31, 2016, property, plant and equipment consist of the following:

	<b>March 31, 2017</b>	<b>December 31, 2016</b>
	(in thousands)	
Land, buildings and leasehold improvements	\$ 2,117	\$ 2,095
Machinery and equipment	7,395	7,224
Computer equipment and software	8,345	8,115
Furniture and fixtures	1,284	1,274
Automobiles	201	196
	<u>19,342</u>	<u>18,904</u>
Less: accumulated depreciation	(15,074)	(14,608)
Property, plant and equipment, net	<u>\$ 4,268</u>	<u>\$ 4,296</u>

**7. Related Party Transactions**

As part of the acquisitions of Multi Channel Systems MCS GmbH (MCS) and Triangle BioSystems, Inc. (TBSI) in 2014, the Company signed lease agreements with the former owners of the acquired companies. The principals of such former owners of MCS and TBSI were employees of the Company as of March 31, 2017 and 2016. Pursuant to a lease agreement, the Company incurred rent expense of approximately \$58 thousand to the former owners of MCS for both the three months ended March 31, 2017 and 2016, respectively. The Company incurred rent expense of approximately \$11 thousand to the former owner of TBSI for both the three months ended March 31, 2017 and 2016, respectively.

**8. Warranties**

Warranties are estimated and accrued at the time revenues are recorded. A rollforward of the Company's product warranty accrual is as follows:

	<b>Beginning Balance</b>	<b>Payments</b>	<b>Additions/ (Credits)</b>	<b>Ending Balance</b>
	(in thousands)			
Year ended December 31, 2016	\$ 147	(97)	143	\$ 193
Three months ended March 31, 2017	\$ 193	(3)	16	\$ 206

**9. Employee Benefit Plans**

One of the Company's subsidiaries in the United Kingdom, or UK, Biochrom Limited, maintains contributory, defined benefit pension plans for substantially all of its employees. As of June 30, 2014, these defined benefit pension plans were closed to new employees, as well as closed to the future accrual of benefits for existing employees. The components of the Company's defined benefit pension expense were as follows:

	<b>Three Months Ended March 31,</b>	
	<b>2017</b>	<b>2016</b>
	(in thousands)	
Components of net periodic benefit cost:		
Interest cost	\$ 125	\$ 168
Expected return on plan assets	(159)	(181)
Net amortization loss	87	80
Net periodic benefit cost	<u>\$ 53</u>	<u>\$ 67</u>

For the three months ended March 31, 2017 and 2016, the Company contributed \$0.2 million, for both periods, to its defined benefit pension plans. The Company expects to contribute approximately \$0.5 million to its defined benefit pension plans during the remainder of 2017.

The Company had an underfunded pension liability of approximately \$3.2 million and \$3.0 million, as of March 31, 2017 and December 31, 2016, respectively, included in the other long term liabilities line item in the consolidated balance sheets.

## 10. Leases

The Company has noncancelable operating leases for office and warehouse space expiring at various dates through 2022 and thereafter. Rent expense, which is recorded on a straight-line basis, is estimated to be \$1.7 million for the year ended December 31, 2017. Rent expense was approximately \$0.4 million and \$0.5 million for the three months ended March 31, 2017 and 2016, respectively.

Future minimum lease payments for operating leases, with initial or remaining terms in excess of one year at March 31, 2017, are as follows:

	<b>Operating Leases</b>
	(in thousands)
2018	\$ 1,610
2019	1,618
2020	1,421
2021	1,098
2022	1,098
Thereafter	1,836
Net minimum lease payments	<u>\$ 8,681</u>

## 11. Capital Stock

### *Common Stock*

On February 5, 2008, the Company's Board of Directors adopted a Shareholder Rights Plan and declared a dividend distribution of one preferred stock purchase right for each outstanding share of the Company's common stock to shareholders of record as of the close of business on February 6, 2008. Initially, these rights will not be exercisable and will trade with the shares of the Company's common stock. Under the Shareholder Rights Plan, the rights generally will become exercisable if a person becomes an "acquiring person" by acquiring 20% or more of the common stock of the Company or if a person commences a tender offer that could result in that person owning 20% or more of the common stock of the Company. If a person becomes an acquiring person, each holder of a right (other than the acquiring person) would be entitled to purchase, at the then-current exercise price, such number of shares of preferred stock which are equivalent to shares of the Company's common stock having a value of twice the exercise price of the right. Unless the Board of Directors elects to extend such plan, the Shareholder Rights Plan will expire in February 2018. If the Company is acquired in a merger or other business combination transaction after any such event, each holder of a right would then be entitled to purchase, at the then-current exercise price, shares of the acquiring company's common stock having a value of twice the exercise price of the right.

### *Preferred Stock*

The Company's Board of Directors has the authority to issue up to 5.0 million shares of preferred stock and to determine the price privileges and other terms of the shares. The Board of Directors may exercise this authority without any further approval of stockholders. As of March 31, 2017, the Company had no preferred stock issued or outstanding.

*Employee Stock Purchase Plan (as amended, the “ESPP”)*

In 2000, the Company approved the ESPP. Under this ESPP, participating employees can authorize the Company to withhold a portion of their base pay during consecutive six-month payment periods for the purchase of shares of the Company’s common stock. At the conclusion of the period, participating employees can purchase shares of the Company’s common stock at 85% of the lower of the fair market value of the Company’s common stock at the beginning or end of the period. Shares are issued under the ESPP for the six-month periods ending June 30 and December 31. Under this plan, 750,000 shares of common stock are authorized for issuance of which 725,239 shares were issued as of March 31, 2017. There were no shares issued under the ESPP during the three months ended March 31, 2017 and 2016.

*Stock Option and Equity Incentive Plans*

*Third Amended and Restated 2000 Stock Option and Incentive Plan (as amended, the “Third A&R Plan”)*

The Second Amendment to the Third A&R Plan (the “Amendment”) was adopted by the Board of Directors on April 3, 2015. Such Amendment was approved by the stockholders at the Company’s 2015 Annual Meeting of Stockholders. Pursuant to the Amendment, the aggregate number of shares authorized for issuance under the Third A&R Plan was increased by 2,500,000 shares to 17,508,929.

*Restricted Stock Units with a Market Condition (the “Market Condition RSU’s”)*

On August 3, 2015, the Compensation Committee of the Board of Directors of the Company approved and granted deferred stock awards of Market Condition RSU’s to certain members of the Company’s management team under the Third A&R Plan. The vesting of these Market Condition RSU’s is cliff-based and linked to the achievement of a relative total shareholder return of the Company’s common stock from August 3, 2015 to the earlier of (i) August 3, 2018 or (ii) upon a change of control (measured relative to the Russell 3000 index and based on the 20-day trading average price before each such date). As of March 31, 2017, the target number of these restricted stock units that may be earned is 182,150 shares; the maximum amount is 150% of the target number.

*Stock-Based Payment Awards*

The Company accounts for stock-based payment awards in accordance with the provisions of FASB ASC 718, which requires it to recognize compensation expense for all stock-based payment awards made to employees and directors including stock options, restricted stock units, Market Condition RSU’s and employee stock purchases related to the ESPP.

The Company adopted ASU 2016-09 as of January 1, 2017. As disclosed in footnote 2, as a result of this adoption, the Company has elected as an accounting policy to account for forfeitures for service based awards as they occur, with no adjustment for estimated forfeitures. The Company recognized as of January 1, 2017, a cumulative effect adjustment of \$0.1 million to reduce retained earnings as required under the modified retrospective approach.

Stock option and restricted stock unit activity under the Company’s Third A&R Plan for the three months ended March 31, 2017 was as follows:

	<b>Stock Options</b>		<b>Restricted Stock Units</b>		<b>Market Condition RSU's</b>	
	<b>Stock Options Outstanding</b>	<b>Weighted Average Exercise Price</b>	<b>Restricted Stock Units Outstanding</b>	<b>Grant Date Fair Value</b>	<b>Market Condition RSU's Outstanding</b>	<b>Grant Date Fair Value</b>
Balance at December 31, 2016	4,096,818	\$ 3.94	1,072,653	\$ 3.15	182,150	\$ 4.81
Granted	30,000	3.25	445,690	2.83	-	-
Exercised	(5,709)	2.56	-	-	-	-
Vested (RSUs)	-	-	(251,570)	3.28	-	-
Cancelled / forfeited	(152,212)	3.68	(4,190)	3.05	-	-
Balance at March 31, 2017	<u>3,968,897</u>	\$ 3.94	<u>1,262,583</u>	\$ 3.01	<u>182,150</u>	\$ 4.81

The weighted average fair value of the options granted under the Third A&R Plan during the three months ended March 31, 2017 and 2016 was \$1.27 and \$1.11, respectively. The following assumptions were used to estimate the fair value, using the Black-Scholes option pricing model, of stock options granted during the three months ended March 31, 2017 and 2016:

	<b>Three Months Ended</b>	
	<b>March 31,</b>	
	<b>2017</b>	<b>2016</b>
Volatility	41.07 %	40.26 %
Risk-free interest rate	1.89 %	1.48 %
Expected holding period (in years)	5.20 years	5.36 years
Dividend yield	- %	- %

The Company used historical volatility to calculate the expected volatility for each grant as of the grant date. Historical volatility was determined by calculating the mean reversion of the daily adjusted closing stock price. The risk-free interest rate assumption is based upon observed U.S. Treasury bill interest rates (risk-free) appropriate for the term of the Company's stock options and Market Condition RSU's. The expected holding period of stock options represents the period of time options are expected to be outstanding and is based on historical experience. The vesting period ranges from one to four years and the contractual life is ten years. The correlation coefficient, used to value the Market Condition RSU's, represents the way in which entities move in relation to the Russell 3000 index as a whole.

Stock-based compensation expense related to stock options, restricted stock units, Market Condition RSU's and the ESPP for the three months ended March 31, 2017 and 2016 was allocated as follows:

	<b>Three Months Ended</b>	
	<b>March 31,</b>	
	<b>2017</b>	<b>2016</b>
	(in thousands)	
Cost of revenues	\$ 13	\$ 11
Sales and marketing	133	101
General and administrative	688	622
Research and development	29	20
<b>Total stock-based compensation</b>	<b>\$ 863</b>	<b>\$ 754</b>

The Company did not capitalize any stock-based compensation.

*Earnings per share*

Basic earnings per share is based upon net income divided by the number of weighted average common shares outstanding during the period. The calculation of diluted earnings per share assumes conversion of stock options, restricted stock units and Market Condition RSU's into common stock using the treasury method. The weighted average number of shares used to compute basic and diluted earnings per share consists of the following:

	<b>Three Months Ended</b>	
	<b>March 31,</b>	
	<b>2017</b>	<b>2016</b>
Basic	34,579,473	34,013,352
Effect of assumed conversion of employee and director stock options, restricted stock units and Market Condition RSU's	-	-
<b>Diluted</b>	<b>34,579,473</b>	<b>34,013,352</b>

Excluded from the shares used in calculating the diluted earnings per common share in the above table are options, restricted stock units and Market Condition RSU's of approximately 5,413,630 and 5,461,017 shares of common stock for the three months ended March 31, 2017 and 2016, respectively, as the impact of these shares would be anti-dilutive.

## 12. Long Term Debt

On August 7, 2009, the Company entered into an Amended and Restated Revolving Credit Loan Agreement related to a \$20.0 million revolving credit facility with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders (as amended, the “2009 Credit Agreement”). On March 29, 2013, the Company entered into a Second Amended and Restated Revolving Credit Agreement (as amended, the “2013 Credit Agreement”) with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co, as lenders that amended and restated the 2009 Credit Agreement. Between September 2011 and March 2016, the Company entered into a series of amendments that among other things did the following:

- on September 30, 2011, reduced interest rates to the London Interbank Offered Rate plus 3.0%;
- on March 29, 2013, converted existing loan advances into a term loan in the principal amount of \$15.0 million (the “2013 Term Loan”), provided a revolving credit facility in the maximum principal amount of \$25.0 million (the “2013 Revolving Line”) and a delayed draw term loan (the “2013 DDTL”) of up to \$15.0 million (all with a maturity date of March 29, 2018);
- on October 31, 2013, reduced the 2013 DDTL from up to \$15.0 million to up to \$10.0 million;
- on April 24, 2015, extended the maturity date of the 2013 Revolving Line to March 29, 2018 and reduced the interest rates on the 2013 Revolving Line, 2013 Term Loan and 2013 DDTL;
- on June 30, 2015, amended our quarterly minimum fixed charge coverage financial covenant; and
- on March 9, 2016, amended the principal payment amortization of the 2013 Term Loan and 2013 DDTL to five years, as well as amended our quarterly minimum fixed charge coverage financial covenant.

The maximum amount available under the 2013 Credit Agreement is \$50.0 million as borrowings against the 2013 DDTL in excess of \$10.0 million results in a dollar for dollar reduction in the 2013 Revolving Line capacity. The 2013 Revolving Line, 2013 Term Loan and 2013 DDTL each have a maturity date of March 29, 2018. Borrowings under the 2013 Term Loan and the 2013 DDTL accrue interest at a rate based on either the effective London Interbank Offered Rate (LIBOR) for certain interest periods selected by the Company, or a daily floating rate based on the British Bankers’ Association (BBA) LIBOR as published by Reuters (or other commercially available source providing quotations of BBA LIBOR), plus in either case, a margin of 2.75%. Additionally, the 2013 Revolving Line accrues interest at a rate based on either the effective LIBOR for certain interest periods selected by the Company, or a daily floating rate based on the BBA LIBOR, plus in either case, a margin of 2.25%. The Company was required to fix the rate of interest on at least 50% of the 2013 Term Loan and the 2013 DDTL through the purchase of interest rate swaps.

The loans evidenced by the 2013 Credit Agreement, or the 2013 Loans, are guaranteed by all of the Company’s direct and indirect domestic subsidiaries, and secured by substantially all of the assets of the Company and the guarantors. The 2013 Loans are subject to restrictive covenants under the 2013 Credit Agreement, and financial covenants that require the Company and its subsidiaries to maintain certain financial ratios on a consolidated basis, including a maximum leverage, minimum fixed charge coverage and minimum working capital. Prepayment of the 2013 Loans is allowed by the 2013 Credit Agreement at any time during the terms of the 2013 Loans. The 2013 Loans also contain limitations on the Company’s ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of \$6.0 million and for acquisitions funded solely with equity in excess of \$10.0 million.

As of March 31, 2017 and December 31, 2016, the Company had net borrowings of \$13.7 million, respectively, outstanding under its 2013 Credit Agreement. The carrying value of the debt approximates fair value because the interest rate under the obligation approximates market rates of interest available to the Company for similar instruments. As of March 31, 2017, the Company was in compliance with all financial covenants contained in the 2013 Credit Agreement, was subject to covenant and working capital borrowing restrictions and had available borrowing capacity under its 2013 Credit Agreement of \$5.2 million.

As of March 31, 2017, the weighted effective interest rates, net of the impact of the Company’s interest rate swaps, on its 2013 Term Loan, 2013 DDTL and 2013 Revolving Line borrowings were 3.96%, 3.83% and 3.23%, respectively.

As of March 31, 2017 and December 31, 2016, the Company’s borrowings were comprised of:

	<b>March 31, 2017</b>	<b>December 31, 2016</b>
	(in thousands)	
<b>Long-term debt:</b>		
Term loan	\$ 5,062	\$ 5,400
DDTL	4,125	4,400
Revolving line	4,550	4,050
Total unamortized deferred financing costs	(84)	(104)
<b>Total debt</b>	<b>13,653</b>	<b>13,746</b>
Less: current installments	(2,800)	(2,450)
Current unamortized deferred financing costs	78	78
<b>Long-term debt</b>	<b>\$ 10,931</b>	<b>\$ 11,374</b>

On May 2, 2017, the Company entered into a Third Amended and Restated Revolving Credit Agreement (as amended, the “Credit Agreement”) with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co, as lenders that amended and restated the 2013 Credit Agreement. As a result of the Credit Agreement, the amounts outstanding under the 2013 Credit Agreement with maturities subsequent to March 31, 2018 are classified as long term. The Credit Agreement was entered into to, among other things, consolidate, combine and restate the outstanding indebtedness, on the date of the Credit Agreement, into a Term Loan in the principal amount of \$14.0 million, and also provide for a \$25.0 million revolving line of credit (the “Revolving Line”). The Term Loan and the Revolving Line each have a maturity date of May 1, 2022. Borrowings under the Term Loan accrue interest at a rate based on either the effective LIBOR for certain interest periods selected by the Company, or a daily floating rate based on the BBA LIBOR as published by Reuters (or other commercially available source providing quotations of BBA LIBOR), plus in either case, a margin of 2.75%. Additionally, the Revolving Line accrues interest at a rate based on either the effective LIBOR for certain interest periods selected by the Company, or a daily floating rate based on the BBA LIBOR, plus in either case, a margin of 2.25%.

The Term Loan and loans under the Revolving Line evidenced by the Credit Agreement, or the Loans, are guaranteed by all of the Company’s direct and indirect domestic subsidiaries, and secured by substantially all of the assets of the Company and the guarantors. The Loans are subject to restrictive covenants under the Credit Agreement, and financial covenants that require the Company and its subsidiaries to maintain certain financial ratios on a consolidated basis, including a maximum leverage, minimum fixed charge coverage and minimum working capital. Prepayment of the Loans is allowed by the Credit Agreement at any time during the terms of the Loans. The Loans also contain limitations on the Company’s ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of \$6.0 million and for acquisitions funded solely with equity in excess of \$10.0 million.

### 13. Derivatives

The Company uses interest-rate-related derivative instruments to manage its exposure related to changes in interest rates on its variable-rate debt instruments. The Company does not enter into derivative instruments for any purpose other than cash flow hedging. The Company does not speculate using derivative instruments.

By using derivative financial instruments to hedge exposures to changes in interest rates, the Company exposes itself to credit risk and market risk. Credit risk is the failure of the counterparty to perform under the terms of the derivative contract. When the fair value of a derivative contract is positive, the counterparty owes the Company, which creates credit risk for the Company. When the fair value of a derivative contract is negative, the Company owes the counterparty and, therefore, the Company is not exposed to the counterparty’s credit risk in those circumstances. The Company minimizes counterparty credit risk in derivative instruments by entering into transactions with carefully selected major financial institutions based upon their credit profile.

Market risk is the adverse effect on the value of a derivative instrument that results from a change in interest rates. The market risk associated with interest-rate contracts is managed by establishing and monitoring parameters that limit the types and degree of market risk that may be undertaken.

The Company assesses interest rate risk by continually identifying and monitoring changes in interest rate exposures that may adversely impact expected future cash flows and by evaluating hedging opportunities. The Company maintains risk management control systems to monitor interest rate risk attributable to both the Company’s outstanding or forecasted debt obligations as well as the Company’s offsetting hedge positions. The risk management control systems involve the use of analytical techniques, including cash flow sensitivity analysis, to estimate the expected impact of changes in interest rates on the Company’s future cash flows.

The Company uses variable-rate London Interbank Offered Rate (LIBOR) debt to finance its operations. The debt obligations expose the Company to variability in interest payments due to changes in interest rates. Management believes that it is prudent to limit the variability of a portion of its interest payments. To meet this objective, management enters into LIBOR based interest rate swap agreements to manage fluctuations in cash flows resulting from changes in the benchmark interest rate of LIBOR. These swaps change the variable-rate cash flow exposure on the debt obligations to fixed cash flows. Under the terms of the interest rate swaps, the Company receives LIBOR based variable interest rate payments and makes fixed interest rate payments, thereby creating the equivalent of fixed-rate debt for the notional amount of its debt hedged. In accordance with its Credit Agreement, the Company was required to fix the rate of interest on at least 50% of its Term Loan and the DDTL through the purchase of interest rate swaps. On June 5, 2013, the Company entered into an interest rate swap contract with an original notional amount of \$15.0 million and a maturity date of March 29, 2018 in order to hedge the risk of changes in the effective benchmark interest rate (LIBOR) associated with the Company’s Term Loan. On November 29, 2013, the Company entered into a second interest rate swap contract with an original notional amount of \$5.0 million and a maturity date of March 29, 2018 in order to hedge the risk of changes in the effective benchmark interest rate (LIBOR) associated with the DDTL. The notional amount of the Company’s derivative instruments as of March 31, 2017 was \$4.5 million. The Term Loan swap contract effectively converted specific variable-rate debt into fixed-rate debt and fixed the LIBOR rate associated with the Term Loan at 0.96% plus a bank margin of 2.75%. The DDTL swap contract effectively converted specific variable-rate debt into fixed-rate debt and fixed the LIBOR rate associated with the Term Loan at 0.93% plus a bank margin of 2.75%. The interest rate swaps were designated as cash flow hedges in accordance with ASC 815, *Derivatives and Hedging*.

As disclosed in Note 12, on May 2, 2017, the Company entered into the Credit Agreement to amend its credit facility with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co. as lenders. Immediately after entering into this Credit Agreement, the Company entered into a new interest rate swap contract with Bank of America with a notional amount of \$14.0 million and a maturity date of March 30, 2022 in order to hedge the risk of changes in the effective benchmark interest rate (LIBOR) associated with the Company’s Term Loan. The swap contract converted specific variable-rate debt into fixed-rate debt and fixed the LIBOR rate associated with the Term Loan at 1.86%. The interest rate swap was designated as a cash flow hedge instrument in accordance with ASC 815 “Derivatives and Hedging”. As a result of entering into the new interest rate swap contract, the Company unwound the previous interest rate swap contracts, and received an immaterial amount in proceeds.

The following table presents the notional amount and fair value of the Company’s derivative instruments as of March 31, 2017 and December 31, 2016.

		<b>March 31, 2017</b>	<b>March 31, 2017</b>
		<b>Notional Amount</b>	<b>Fair Value (a)</b>
<b>Derivatives designated as hedging instruments under ASC 815</b>		(in thousands)	
	<b>Balance sheet classification</b>		
Interest rate swaps	Other liabilities-non current	\$ 4,500	\$ 7
		<b>December 31, 2016</b>	<b>December 31, 2016</b>
		<b>Notional Amount</b>	<b>Fair Value (a)</b>
<b>Derivatives designated as hedging instruments under ASC 815</b>		(in thousands)	
	<b>Balance sheet classification</b>		
Interest rate swaps	Other liabilities-non current	\$ 5,500	\$ -

(a) See Note 14 for the fair value measurements related to these financial instruments.

All of the Company’s derivative instruments are designated as hedging instruments.

The Company has structured its interest rate swap agreements to be 100% effective and as a result, there was no impact to earnings resulting from hedge ineffectiveness. Changes in the fair value of interest rate swaps designated as hedging instruments that effectively offset the variability of cash flows associated with variable-rate, long-term debt obligations are reported in accumulated other comprehensive income (“AOCI”). These amounts subsequently are reclassified into interest expense as a yield adjustment of the hedged interest payments in the same period in which the related interest affects earnings. The Company’s interest rate swap agreement was deemed to be fully effective in accordance with ASC 815, and, as such, unrealized gains and losses related to these derivatives were recorded as AOCI.



The following table summarizes the effect of derivatives designated as cash flow hedging instruments and their classification within comprehensive loss for the three months ended March 31, 2017 and 2016:

Derivatives in Hedging Relationships	Amount of gain (loss) recognized in OCI on derivative (effective portion)	
	Three Months Ended March 31,	
	2017	2016
	(in thousands)	
Interest rate swaps	\$ 4	\$ (36)

The following table summarizes the reclassifications out of accumulated other comprehensive loss for the three months ended March 31, 2017 and 2016:

Details about AOCI Components	Amount reclassified from AOCI into income (effective portion)		Location of amount reclassified from AOCI into income (effective portion)
	Three Months Ended March 31,		
	2017	2016	
	(in thousands)		
Interest rate swaps	\$ 3	\$ 13	Interest expense

As of March 31, 2017, \$7 thousand of deferred losses on derivative instruments accumulated in AOCI are expected to be reclassified to earnings during the next twelve months. Transactions and events expected to occur over the next twelve months that will necessitate reclassifying these derivatives' losses to earnings include the repricing of variable-rate debt. There were no cash flow hedges discontinued during 2017 or 2016.

#### 14. Fair Value Measurements

Fair value measurement is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A fair value hierarchy is established, which prioritizes the inputs used in measuring fair value into three broad levels as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Level 2—Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly.

Level 3—Unobservable inputs based on the Company's own assumptions.

The following tables present the fair value hierarchy for those liabilities measured at fair value on a recurring basis:

(In thousands)	Fair Value as of March 31, 2017			Total
	Level 1	Level 2	Level 3	
Liabilities:				
Interest rate swap agreements	\$ -	\$ 7	\$ -	\$ 7

(In thousands)	Fair Value as of December 31, 2016			Total
	Level 1	Level 2	Level 3	
Liabilities:				
Interest rate swap agreements	\$ -	\$ -	\$ -	\$ -

The Company uses the market approach technique to value its financial liabilities. The Company's financial liabilities carried at fair value include derivative instruments used to hedge the Company's interest rate risks. The fair value of the Company's interest rate swap agreements was based on LIBOR yield curves at the reporting date.

## **15. Income Tax**

Income tax was an expense of approximately \$23 thousand and \$0.2 million for the three months ended March 31, 2017 and 2016, respectively. The tax expense for the three months ended March 31, 2017 reflects the expense recorded for the three months ended March 31, 2017 associated with the actual results for the three-month period, as described below.

Discrete items included in the tax expense for the three months ended March 31, 2017 included changes to reserves for uncertain tax positions and tax deficiencies related to stock-based compensation. Tax expense for the three months ended March 31, 2016 included foreign currency gains and losses and the tax impact of the amortization of certain indefinite-lived intangible assets which are amortized for tax purposes only, against which a valuation allowance is not established.

The effective income tax rate was (2.2%) for the three months ended March 31, 2017, compared with (43.6%) for the same period in 2016. The tax rates for the three months ended March 31, 2017 and 2016 were based on actual results for the three-month period rather than an effective tax rate estimated for the entire year. In 2017 and 2016 the Company determined that using a year-to-date approach resulted in a better estimate of income tax expense/benefit based on its forecast of pre-tax income/loss, the mix of taxable income/loss across several jurisdictions with different statutory tax rates, and the impact of the full valuation allowance against U.S. deferred tax assets.

The difference between the Company's effective tax rate period over period was primarily attributable to higher pre-tax income at certain individual subsidiaries in 2016 versus 2017, despite an overall pre-tax loss in both periods. In addition, both periods included the tax impact of amortization of certain indefinite-lived intangibles which are amortized for tax purposes only, against which a valuation allowance is not established.

## **16. Subsequent Events**

On April 14, 2017, anticipated representatives for the estate of an individual plaintiff filed a wrongful death complaint with the Suffolk Superior Court, in the County of Suffolk, Massachusetts, against the Company and other defendants, including Biostage, Inc. (f/k/a Harvard Apparatus Regenerative Technology, Inc.), its subsidiary that was spun off in 2013, as well as another third party. The complaint seeks payment for an unspecified amount of damages and alleges that the plaintiff sustained terminal injuries allegedly caused by products, including synthetic trachea scaffolds and bioreactors, provided by certain of the named defendants and utilized in connection with surgeries performed by third parties in 2012 and 2013. The litigation is at an early stage and the Company intends to vigorously defend this case. While the Company believe that such claim is without merit, the Company is unable to predict the ultimate outcome of such litigation.

On May 2, 2017, the Company entered into the Credit Agreement which restated the 2013 Agreement. See Note 12 for a discussion of the Credit Agreement. Additionally, immediately after entering into the Credit Agreement, the Company entered into a new interest swap agreement with Bank of America. See Note 13 for a discussion of the interest swap agreement.

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

**Forward-Looking Statements**

*This Quarterly Report on Form 10-Q contains statements that are not statements of historical fact and are 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 (the "Exchange Act"). The forward-looking statements are principally, but not exclusively, contained in "Item 2: Management's Discussion and Analysis of Financial Condition and Results of Operations." These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about management's confidence or expectations, and our plans, objectives, expectations and intentions that are not historical facts. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "seek," "expects," "plans," "aim," "anticipates," "believes," "estimates," "projects," "predicts," "intends," "think," "potential," "objectives," "optimistic," "strategy," "goals," "sees," "new," "guidance," "future," "continue," "drive," "growth," "long-term," "projects," "develop," "possible," "emerging," "opportunity," "pursue" and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Factors that may cause our actual results to differ materially from those in the forward-looking statements include reductions in customers' research budgets or government funding; domestic and global economic conditions; economic, political and other risks associated with international revenues and operations; currency exchange rate fluctuations; economic and political conditions generally and those affecting pharmaceutical and biotechnology industries; the seasonal nature of purchasing in Europe; our failure to expand into foreign countries and international markets; our failure to realize the expected benefits of facility consolidations; our inability to manage our growth; competition from our competitors; material weakness in our internal control over financial reporting; ineffective disclosure controls and procedures; failure or inadequacy of the our information technology structure; impact of difficulties implementing our enterprise resource planning systems; our failure to identify potential acquisition candidates and successfully close such acquisitions with favorable pricing or integrate acquired businesses or technologies; unanticipated costs relating to acquisitions and known and unknown costs arising in connection with our consolidation of business functions and any restructuring initiatives; our inability to effectively sell spectrophotometer products following the retirement of the GE Healthcare brand; failure of any banking institution in which we deposit our funds or its failure to provide services; our substantial debt and our ability to meet the financial covenants contained in our credit facility; our failure to raise or generate capital necessary to implement our acquisition and expansion strategy; the failure of our spin-off of Biostage, Inc., f/k/a Harvard Apparatus Regenerative Technology, Inc., to qualify as a transaction that is generally tax-free for U.S. federal income tax purposes; the failure of Biostage to indemnify us for any liabilities associated with Biostage's business; impact of any impairment of our goodwill or intangible assets; our ability to retain key personnel; failure or inadequacy of our information technology structure; rising commodity and precious metals costs; our ability to protect our intellectual property and operate without infringing on others' intellectual property; exposure to product and other liability claims; global stock market volatility, currency exchange rate fluctuations and regulatory changes caused by the United Kingdom's likely exit from the European Union; plus other factors described under the heading "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2016, or described in our other public filings. Our results may also be affected by factors of which we are not currently aware. We may not update these forward-looking statements, even though our situation may change in the future, unless we have obligations under the federal securities laws to update and disclose material developments related to previously disclosed information.*

**Overview**

Harvard Bioscience, Inc., a Delaware corporation, is a global developer, manufacturer and marketer of a broad range of scientific instruments, systems and lab consumables used to advance life science for basic research, drug discovery, clinical and environmental testing. Our products are sold to thousands of researchers in over 100 countries through our global sales organization, websites, catalogs, and through distributors including Thermo Fisher Scientific Inc., VWR, and other specialized distributors. We have sales and manufacturing operations in the United States, the United Kingdom, Germany, Sweden, Spain, France, Canada, and China.

## Our Strategy

Our vision is to be a world leading life science company that excels in meeting the needs of our customers by providing a wide breadth of innovative products and solutions, while providing exemplary customer service. Our business strategy is to grow our top-line and bottom-line, and build shareholder value through a commitment to:

- commercial excellence;
- new product development;
- strategic acquisitions; and
- operational efficiencies.

## Components of Operating Income

*Revenues.* We generate revenues by selling apparatus, instruments, devices and consumables through our distributors, direct sales force, websites and catalogs. Our websites and catalogs serve as the primary sales tools for our Cell and Animal Physiology product line. This product line includes both proprietary manufactured products and complementary products from various suppliers. Our reputation as a leading producer in many of our manufactured products creates traffic to our website, enables cross-selling and facilitates the introduction of new products. We have field sales teams in the U.S., Canada, the United Kingdom, Germany, France, Spain and China. In those regions where we do not have a direct sales team, we use distributors. Revenues from direct sales to end users represented approximately 67% and 61% of our revenues for the three months ended March 31, 2017 and 2016, respectively.

Products in our Molecular Separation and Analysis product line are generally sold by distributors, and are typically priced in the range of \$5,000-\$15,000. They are mainly scientific instruments like spectrophotometers and plate readers that analyze light to detect and quantify a wide range of molecular and cellular processes, or apparatus like gel electrophoresis units. We also use distributors for both our catalog products and our higher priced products, as well as for sales in locations where we do not have subsidiaries or where we have existing distributors in place from acquired businesses. For the three months ended March 31, 2017 and 2016, approximately 33% and 39% of our total revenues, respectively, were derived from sales to distributors.

For the three months ended March 31, 2017 and 2016, approximately 61% of our revenues, for both periods, was derived from products we manufacture, approximately 14% and 16%, respectively, were derived from complementary products we distribute in order to provide the researcher with a single source for all equipment needed to conduct a particular experiment, and approximately 25% and 23%, respectively, were derived from distributed products sold under our brand names.

For the three months ended March 31, 2017 and 2016, approximately 33% and 38% of our revenues, respectively, were derived from sales made by our non-United States operations. As discussed later under “Selected Results of Operations”, the decrease in revenues derived by our non-United States operations is primarily attributable to currency translation and the sale of our AHN Biotechnologie GmbH subsidiary (AHN).

Changes in the relative proportion of our revenue sources between direct sales and distribution sales are primarily the result of changes in geographic mix.

*Cost of revenues.* Cost of revenues includes material, labor and manufacturing overhead costs, obsolescence charges, packaging costs, warranty costs, shipping costs and royalties. Our cost of revenues may vary over time based on the mix of products sold. We sell products that we manufacture and products that we purchase from third parties. The products that we purchase from third parties typically have a higher cost of revenues as a percent of revenues because the profit is effectively shared with the original manufacturer. We anticipate that our manufactured products will continue to have a lower cost of revenues as a percentage of revenues as compared with the cost of non-manufactured products for the foreseeable future. Additionally, our cost of revenues as a percent of revenues will vary based on mix of direct to end user sales and distributor sales, mix by product line and mix by geography.

*Sales and marketing expenses.* Sales and marketing expense consists primarily of salaries and related expenses for personnel in sales, marketing and customer support functions. We also incur costs for travel, trade shows, demonstration equipment, public relations and marketing materials, consisting primarily of the printing and distribution of our catalogs, supplements and the maintenance of our websites. We may from time to time expand our marketing efforts by employing additional technical marketing specialists in an effort to increase sales of selected categories of products. We may also from time to time expand our direct sales organizations in an effort to concentrate on key accounts or promote certain product lines.

*General and administrative expenses.* General and administrative expense consists primarily of salaries and other related costs for personnel in executive, finance, accounting, information technology and human resource functions. Other costs include professional fees for legal and accounting services, information technology infrastructure, facility costs, investor relations, insurance and provision for doubtful accounts.

*Research and development expenses.* Research and development expense consists primarily of salaries and related expenses for personnel and spending to develop and enhance our products. Other research and development expense includes fees for consultants and outside service providers, and material costs for prototype and test units. We expense research and development costs as incurred. Grants received from governmental entities related to research projects are accounted for as a reduction in research and development expense over the period of the project. We believe that investment in product development is a competitive necessity and plan to continue to make these investments in order to realize the potential of new technologies that we develop, license or acquire for existing markets.

*Stock-based compensation expenses.* Stock-based compensation expense for the three months ended March 31, 2017 and 2016 was \$0.9 million and \$0.8 million, respectively. The stock-based compensation expense related to stock options, restricted stock units, restricted stock units with a market condition and the employee stock purchase plan and was recorded as a component of cost of revenues, sales and marketing expenses, general and administrative expenses and research and development expenses.

## Selected Results of Operations

### Three Months Ended March 31, 2017 compared to Three Months Ended March 31, 2016

	Three Months Ended March 31,		Dollar Change	% Change
	2017	2016		
	(dollars in thousands)			
Revenues	\$ 24,156	\$ 26,963	\$ (2,807)	-10.4%
Cost of revenues	12,657	14,018	(1,361)	-9.7%
Gross margin percentage	47.6%	48.0%	N/A	-0.8%
Sales and marketing expenses	5,048	5,102	(54)	-1.1%
General and administrative expenses	5,206	5,948	(742)	-12.5%
Research and development expenses	1,285	1,425	(140)	-9.8%
Amortization of intangible assets	599	680	(81)	-11.9%

Each reporting period, we face currency exposure that arises from translating the results of our worldwide operations to the United States dollar at exchange rates that fluctuate from the beginning of such period. We evaluate our results of operations on both a reported and a foreign currency-neutral basis, which excludes the impact of fluctuations in foreign currency exchange rates. We believe that disclosing this non-GAAP financial information provides investors with an enhanced understanding of the underlying operations of the business. This non-GAAP financial information is used by our management to internally evaluate our operating results. The non-GAAP financial information provided below should be considered in addition to, not as a substitute for, the financial information provided and presented in accordance with accounting principles generally accepted in the United States, or GAAP and may be different than other companies' non-GAAP financial information.

### Revenues

Revenues for the three months ended March 31, 2017 were \$24.2 million, a decrease of approximately 10.4%, or \$2.8 million, compared to revenues of \$27.0 million for the three months ended March 31, 2016.

Excluding the effects of currency translation, primarily from the weakening of the British Pound against the U.S. dollar, our revenues decreased 7.9% or \$2.1 million, from the previous year. The remainder of the decline in revenues was primarily the result of softness in the European funding environment and slower than expected NIH budget funding, as well as the loss of approximately \$0.7 million in revenues from our AHN subsidiary, following its sale in October 2016. AHN, located in Nordhausen, Germany, was a manufacturer of liquid handling products.

**Reconciliation of Changes In Revenues Compared to the  
Same Period of the Prior Year**

	<b>For the Three Months Ended March 31, 2017</b>
Change	-7.9%
Foreign exchange effect	-2.5%
Total revenue change	-10.4%

***Cost of revenues***

Cost of revenues were \$12.7 million for the three months ended March 31, 2017, a decrease of \$1.3 million, or 9.7%, compared with \$14.0 million for the three months ended March 31, 2016. The decrease in cost of revenues was primarily due to the decrease in revenues and also included the effect on cost of revenues of the sale of AHN. Gross profit margin as a percentage of revenues decreased to 47.6% for the three months ended March 31, 2017 compared with 48.0% for 2016. The decrease in gross profit margin was a result of a higher proportion of fixed charges to sales in comparison to the prior period and also included the effect of foreign currency fluctuation.

***Sales and marketing expenses***

Sales and marketing expenses were relatively flat, decreasing \$0.1 million or 1.1% to \$5.0 million for the three months ended March 31, 2017 compared to \$5.1 million during the same period in 2016.

***General and administrative expenses***

General and administrative expenses were \$5.2 million for the three months ended March 31, 2017, a decrease of \$0.7 million, or 12.5%, compared with \$5.9 million for the three months ended March 31, 2016. The decrease was primarily due to forensic investigation costs incurred during the three months ended March 31, 2016, partially offset by increased audit remediation costs incurred during the three months ended March 31, 2017.

***Research and development expenses***

Research and development expenses were \$1.3 million for the three months ended March 31, 2017, a decrease of \$0.1 million, or 9.8%, compared with \$1.4 million for the three months ended March 31, 2016. The decrease in expense was primarily all due to an increase in the amount of research grants earned. Research grants are accounted for as a reduction in research and development expense over the period of research performed.

***Amortization of intangible assets***

Amortization of intangible asset expenses was \$0.6 million as compared to \$0.7 million for the three months ended March 31, 2017 and 2016, respectively. The decrease in amortization expense was primarily due to the effect of some long-lived intangible assets becoming fully amortized towards the end of fiscal year 2016.

***Other expense, net***

Other expense, net, was \$0.4 million and \$0.2 million for the three months ended March 31, 2017 and 2016, respectively. Included in other expense, net for three months ended March 31, 2017 and 2016 was interest expense of \$0.2 million, for both periods. The increase in other expense, net was primarily due to an increase in foreign exchange losses. Currency exchange rate fluctuations included as a component of net loss resulted in approximately \$0.1 million and \$9 thousand in currency losses for the three months ended March 31, 2017 and 2016, respectively.

***Income taxes***

Income tax was an expense of approximately \$23 thousand and \$0.2 million for the three months ended March 31, 2017 and 2016, respectively. The effective income tax rate was (2.2%) for the three months ended March 31, 2017 compared with (43.6%) for the same period in 2016. The tax expense for the three months ended March 31, 2017 reflects the expense recorded for the three months ended March 31, 2017 associated with the actual results for the three-month period. Discrete items included in the tax expense for the three months ended March 31, 2017 included changes to reserves for uncertain tax positions and tax deficiencies related to stock-based compensation. Tax expense for the three months ended March 31, 2016 included foreign currency gains and losses and the tax impact of amortization of certain indefinite-lived intangible assets which are amortized for tax purposes only, against which a valuation allowance is not established.

We have operations in the UK and several European countries where we historically had material current and deferred income tax balances related to those activities. As such, the UK's 2016 decision to withdraw from the European Union or the EU could have a material effect on our current and deferred income taxes. In March 2017, the UK initiated, through letter submission to the EU, a formal two-year process to officially withdraw its membership. During this two-year period, the UK and EU member states are expected to negotiate many provisions in the UK bilateral agreements and tax treaties with EU member states as well as EU rules governing the income tax treatment of deferred intercompany profits. The final outcome of these negotiations will not be known until both the EU and the UK approve them and the UK enacts the related changes in its tax laws. EU law will cease to apply in the UK at the end of the two-year process in March 2019, unless the negotiations are extended. The letter submission in March 2017 is an administrative step required to begin the formal withdrawal process and is not considered a tax law enactment under ASC 740. Consequently, we plan to adjust our current and deferred taxes when tax law changes related to UK's withdrawal from the EU are actually enacted and/or when EU law ceases to apply in the UK.

### ***Liquidity and Capital Resources***

Historically, we have financed our business through cash provided by operating activities, the issuance of common stock, and bank borrowings. Our liquidity requirements arise primarily from investing activities, including funding of acquisitions, and other capital expenditures.

As of March 31, 2017, we held cash and cash equivalents of \$4.6 million, compared with \$5.6 million at December 31, 2016. As of March 31, 2017 and December 31, 2016, we had \$13.7 million of borrowings outstanding under our credit facility, net of deferred financing costs. Total debt, net of cash and cash equivalents was \$9.1 million at March 31, 2017, compared to \$8.1 million at December 31, 2016. In addition, we had an underfunded United Kingdom pension liability of approximately \$3.2 million and \$3.0 million at March 31, 2017 and December 31, 2016, respectively.

As of March 31, 2017 and December 31, 2016, cash and cash equivalents held by our foreign subsidiaries was \$3.8 million and \$4.5 million, respectively. Funds held by our foreign subsidiaries are not available for domestic operations unless the funds are repatriated. If we planned to or did repatriate these funds, then United States federal and state income taxes would have to be recorded on such amounts. Our reinvestment determination is based on the future operational and capital requirements of our U.S. and non-U.S. operations. As of December 31, 2015, we determined that the assertion of permanent reinvestment at our foreign subsidiaries in Canada and France was no longer appropriate and we repatriated approximately \$3.2 million during the three months ended March 31, 2016. We did not repatriate any funds during the three months ended March 31, 2017. Cash balances did not exceed the level required for normal business operations at our subsidiaries in Canada and France as of March 31, 2017. With no funds available to repatriate, no deferred tax liability was recorded as of that date. The total tax liability associated with the repatriation of undistributed earnings in Canada and France during the three months ended March 31, 2016 was approximately \$1.7 million, however the liability was entirely offset by the foreign tax credits generated from the repatriation. We currently have no plans to repatriate any of our undistributed foreign earnings in any other countries outside of Canada and France. These balances are considered permanently reinvested and will be used for foreign items including foreign acquisitions, capital investments, pension obligations and operations. It is impracticable to estimate the total tax liability, if any, which would be created by the future distribution of these earnings.

We currently intend to retain all of our earnings to finance the expansion and development of our business and do not anticipate paying any cash dividends to holders of our common stock in the near future. As a result, capital appreciation, if any, of our common stock will be a stockholder's sole source of gain for the near future.



**Condensed Cash Flow Statements  
(unaudited)**

	<b>Three Months Ended March 31,</b>	
	<b>2017</b>	<b>2016</b>
	(in thousands)	
<b>Cash flows from operations:</b>		
Net loss	\$ (1,066)	\$ (636)
Other adjustments to operating cash flows	1,781	1,891
Changes in assets and liabilities	(1,325)	(1,981)
Net cash used in operating activities	(610)	(726)
<b>Investing activities:</b>		
Additions to property, plant and equipment	(198)	(201)
Other investing activities	(30)	(4)
Net cash used in investing activities	(228)	(205)
<b>Financing activities:</b>		
Net repayments of debt	(113)	(1,613)
Other financing activities	(155)	(113)
Net cash used in financing activities	(268)	(1,726)
Effect of exchange rate changes on cash	109	88
Decrease in cash and cash equivalents	\$ (997)	\$ (2,569)

Our operating activities used cash of \$0.6 million and \$0.7 million of cash for the three months ended March 31, 2017 and 2016, respectively. Net cash used in operations for both periods was primarily due to the effect of a net loss and changes in working capital quarter over quarter.

Our investing activities used cash of \$0.2 million for both the three months ended March 31, 2017 and 2016. Investing activities during the three months ended March 31, 2017 and 2016 primarily included cash used for purchases of property, plant and equipment. We spent \$0.2 million on capital expenditures during both the three months ended March 31, 2017 and 2016, respectively.

Our financing activities have historically consisted of borrowings and repayments under our revolving credit facility and term loans, payments of debt issuance costs and the issuance of common stock. During the three months ended March 31, 2017, financing activities used cash of \$0.3 million, compared with \$1.7 million of cash used by financing activities for the three months ended March 31, 2016. During the three months ended March 31, 2017, we borrowed \$1.0 million under our credit facility, repaid \$1.1 million of debt under our credit facility and term loans and ended the quarter with \$13.7 million of borrowings, net of deferred financing costs of \$0.1 million. Net cash paid for tax withholdings from the issuance of common stock for the three months ended March 31, 2017 were \$0.2 million, which related to the vesting of restricted stock units. During the three months ended March 31, 2016, we borrowed \$1.0 million under our credit facility, repaid \$2.6 million of debt under our credit facility and term loans and ended with \$17.1 million of borrowings at March 31, 2016, net of deferred financing costs of \$0.1 million. Net cash paid for tax withholdings from the issuance of common stock for the three months ended March 31, 2016 were \$0.1 million, which related to the vesting of restricted stock units.

***Borrowing Arrangements***

On August 7, 2009, we entered into an Amended and Restated Revolving Credit Loan Agreement related to a \$20.0 million revolving credit facility with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders (as amended, the “2009 Credit Agreement”). On March 29, 2013, we entered into a Second Amended and Restated Revolving Credit Agreement (as amended, the “2013 Credit Agreement”) with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co, as lenders that amended and restated the 2009 Credit Agreement. Between September 2011 and March 2016, we entered into a series of amendments that among other things did the following:

- on September 30, 2011, reduced interest rates to the London Interbank Offered Rate plus 3.0%;
- on March 29, 2013, converted existing loan advances into a term loan in the principal amount of \$15.0 million (the “2013 Term Loan”), provided a revolving credit facility in the maximum principal amount of \$25.0 million (“2013 Revolving Line”) and a delayed draw term loan (“2013 DDTL”) of up to \$15.0 million (all with a maturity date of March 29, 2018);
- on October 31, 2013, reduced the 2013 DDTL from up to \$15.0 million to up to \$10.0 million;
- on April 24, 2015, extended the maturity date of the 2013 Revolving Line to March 29, 2018 and reduced the interest rates on the 2013 Revolving Line, 2013 Term Loan and 2013 DDTL;
- on June 30, 2015, amended our quarterly minimum fixed charge coverage financial covenant; and
- on March 9, 2016, amended the principal payment amortization of the 2013 Term Loan and 2013 DDTL to five years, as well as amended our quarterly minimum fixed charge coverage financial covenant.





The maximum amount available under the 2013 Credit Agreement is \$50.0 million as borrowings against the 2013 DDTL in excess of \$10.0 million results in a dollar for dollar reduction in the 2013 Revolving Line capacity. The 2013 Revolving Line, 2013 Term Loan and 2013 DDTL each have a maturity date of March 29, 2018. Borrowings under the 2013 Term Loan and the 2013 DDTL accrue interest at a rate based on either the effective London Interbank Offered Rate (LIBOR) for certain interest periods selected by us, or a daily floating rate based on the British Bankers' Association (BBA) LIBOR as published by Reuters (or other commercially available source providing quotations of BBA LIBOR), plus in either case, a margin of 2.75%. Additionally, the 2013 Revolving Line accrues interest at a rate based on either the effective LIBOR for certain interest periods selected by us, or a daily floating rate based on the BBA LIBOR, plus in either case, a margin of 2.25%. We were required to fix the rate of interest on at least 50% of the 2013 Term Loan and the 2013 DDTL through the purchase of interest rate swaps.

The loans evidenced by the 2013 Credit Agreement, or the 2013 Loans, are guaranteed by all of our direct and indirect domestic subsidiaries, and secured by substantially all of our assets and the guarantors. The 2013 Loans are subject to restrictive covenants under the 2013 Credit Agreement, and financial covenants that require us to maintain certain financial ratios on a consolidated basis, including a maximum leverage, minimum fixed charge coverage and minimum working capital. Prepayment of the 2013 Loans is allowed by the 2013 Credit Agreement at any time during the terms of the 2013 Loans. The 2013 Loans also contain limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of \$6.0 million and for acquisitions funded solely with equity in excess of \$10.0 million.

At March 31, 2017, the weighted effective interest rates on the 2013 Term Loan, 2013 DDTL and 2013 Revolving Line borrowings were 3.96%, 3.83% and 3.23%, respectively. The 2013 Credit Agreement includes covenants relating to income, debt coverage and cash flow, as well as minimum working capital requirements. The 2013 Credit Agreement also contains limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of \$6.0 million and for acquisitions funded solely with equity in excess of \$10.0 million. As of March 31, 2017, we were in compliance with all financial covenants contained in the 2013 Credit Agreement; we were subject to covenant and working capital borrowing restrictions, and had available borrowing capacity under the 2013 Credit Agreement of \$5.2 million.

On May 2, 2017, we entered into a Third Amended and Restated Revolving Credit Agreement (as amended, the "Credit Agreement") with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co, as lenders that amended and restated the 2013 Credit Agreement. The Credit Agreement was entered into to, among other things, consolidate, combine and restate the outstanding indebtedness, on the date of the Credit Agreement, into a Term Loan in the principal amount of \$14.0 million, and also provide for a \$25.0 million revolving line of credit (the "Revolving Line"). The Term Loan and the Revolving Line each have a maturity date of May 1, 2022. Borrowings under the Term Loan accrue interest at a rate based on either the effective LIBOR for certain interest periods selected by us, or a daily floating rate based on the BBA LIBOR as published by Reuters (or other commercially available source providing quotations of BBA LIBOR), plus in either case, a margin of 2.75%. Additionally, the Revolving Line accrues interest at a rate based on either the effective LIBOR for certain interest periods selected by us, or a daily floating rate based on the BBA LIBOR, plus in either case, a margin of 2.25%.

The Term Loan and loans under the Revolving Line as evidenced by the Credit Agreement, or the Loans, are guaranteed by all of our direct and indirect domestic subsidiaries, and secured by substantially all of our assets and the guarantors. The Loans are subject to restrictive covenants under the Credit Agreement, and financial covenants that require us and our subsidiaries to maintain certain financial ratios on a consolidated basis, including a maximum leverage, minimum fixed charge coverage and minimum working capital. Prepayment of the Loans is allowed by the Credit Agreement at any time during the terms of the Loans. The Loans also contain limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of \$6.0 million and for acquisitions funded solely with equity in excess of \$10.0 million.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary as a result of a number of factors. Based on our current operations and current operating plans, we expect that our available cash, cash generated from current operations and debt capacity will be sufficient to finance current operations, any potential future acquisitions and capital expenditures for the next 12 months and beyond. This may involve incurring additional debt or raising equity capital for our business. Additional capital raising activities will dilute the ownership interests of existing stockholders to the extent we raise capital by issuing equity securities and we cannot guarantee that we will be successful in raising additional capital on favorable terms or at all.

## **Critical Accounting Policies**

The critical accounting policies underlying the accompanying unaudited consolidated financial statements are those set forth in Part II, Item 7 included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which was filed with the SEC on March 17, 2017.

## **Impact of Foreign Currencies**

Our international operations in some instances operate in a natural hedge as we sell our products in many countries and a substantial portion of our revenues, costs and expenses are denominated in foreign currencies, especially the British pound sterling, the Euro, the Canadian dollar and the Swedish krona.

During the three months ended March 31, 2017, changes in foreign currency exchange rates resulted in an unfavorable translation effect on our consolidated revenues and our consolidated net loss. Changes in foreign currency exchange rates resulted in an unfavorable effect on revenues of approximately \$0.7 million and a favorable effect on expenses of approximately \$0.6 million. During the three months ended March 31, 2016, changes in foreign currency exchange rates resulted in an unfavorable effect on revenues of \$0.3 million and a favorable effect on expenses of \$0.3 million.

The gain associated with the translation of foreign equity into U.S. dollars included as a component of comprehensive loss during the three months ended March 31, 2017, was approximately \$0.9 million, compared to a gain of \$0.6 million for the three months ended March 31, 2016.

In addition, currency exchange rate fluctuations included as a component of net loss resulted in approximately \$0.1 million and \$9 thousand in currency losses during the three months ended March 31, 2017 and 2016, respectively.

## **Recently Issued Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, "*Revenue from Contracts with Customers*," a new accounting standard that provides for a comprehensive model to use in the accounting for revenue arising from contracts with customers that will replace most existing revenue recognition guidance within generally accepted accounting principles in the United States. Under this standard, revenue will be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services. We expect to adopt this standard as of January 1, 2018 using the modified retrospective approach. We intend to complete a comprehensive assessment of its contracts in 2017 concerning any unique customer contract terms or transactions that could have implications to the timing of revenue recognition under the new guidance. We expect this undertaking will be complete in the second half of 2017.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which is intended to improve financial reporting about leasing transactions. The update requires a lessee to record on the balance sheet the assets and liabilities for the rights and obligations created by lease terms of more than 12 months. The update is effective for fiscal years beginning after December 15, 2018. We are evaluating the requirements of this guidance and have not yet determined the impact of the adoption on its consolidated financial position, results of operations and cash flows, however, assets and liabilities will increase upon adoption for right-of-use assets and lease liabilities. Our future commitments under lease obligations are summarized in Note 10.

### *Recently Adopted Accounting Pronouncements*

In March 2016, the FASB issued ASU 2016-09, Compensation – Stock Compensation (Topic 718): *Improvements to Employee Share-Based Payment Accounting*, which simplifies the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows.

The standard requires an entity to recognize all excess tax benefits and tax deficiencies as income tax benefit or expense in the income statement as discrete items in the reporting period in which they occur, and such tax benefits and tax deficiencies are not included in the estimate of an entity's annual effective tax rate, applied on a prospective basis. Further, the standard eliminates the requirement to defer the recognition of excess tax benefits until the benefit is realized through a reduction to taxes payable. All excess tax benefits previously unrecognized, along with any valuation allowance, should be recognized on a modified retrospective basis as a cumulative adjustment to retained earnings as of the date of adoption. Under ASU 2016-09, an entity that applies the treasury stock method in calculating diluted earnings per share is required to exclude excess tax benefits and deficiencies from the calculation of assumed proceeds since such amounts are recognized in the income statement. Excess tax benefits should also be classified as operating activities in the same manner as other cash flows related to income taxes on the statement of cash flows, as such excess tax benefits no longer represent financing activities since they are recognized in the income statement, and should be applied prospectively or retrospectively to all periods presented.

We adopted ASU 2016-09 as of January 1, 2017. We recorded a cumulative increase in retained earnings of \$0.5 million at the beginning of the first quarter of 2017 with a corresponding increase in deferred tax assets related to the prior years' unrecognized excess tax benefits. An equal amount of valuation allowance was also recorded against these deferred tax assets with a corresponding decrease to retained earnings resulting in a net impact of \$0. In addition, tax deficiencies related to vested restricted stock units and canceled stock options during the first quarter of 2017 have been recognized in the current period's income statement.

ASU 2016-09 also allows an entity to elect as an accounting policy either to continue to estimate the total number of awards for which the requisite service period will not be rendered or to account for forfeitures for service based awards as they occur. An entity that elects to account for forfeitures as they occur should apply the accounting change on a modified retrospective basis as a cumulative effect adjustment to retained earnings as of the date of adoption. We elected as an accounting policy to account for forfeitures for service based awards as they occur, and as a result, we recorded a cumulative effect adjustment of \$0.1 million to reduce retained earnings with a corresponding increase in additional paid in capital related to the prior years as required under the modified retrospective approach. The tax effect of this adjustment, which included the impact of a valuation allowance was immaterial.

**Item 3. *Quantitative and Qualitative Disclosures about Market Risk.***

The majority of our manufacturing and testing of products occurs in our facilities in the United States, Germany, Sweden and Spain. We sell our products globally through our distributors, direct sales force, websites and catalogs. As a result, our financial results are affected by factors such as changes in foreign currency exchange rates and weak economic conditions in foreign markets.

We collect amounts representing a substantial portion of our revenues and pay amounts representing a substantial portion of our operating expenses in foreign currencies. As a result, changes in currency exchange rates from time to time may affect our operating results.

We are exposed to market risk from changes in interest rates primarily through our financing activities. As of March 31, 2017, we had \$13.7 million outstanding under our Credit Agreement, net of deferred financing costs.

On April 24, 2015, we entered an amendment to our 2013 Credit Agreement (Third Amendment), which extended the maturity date of the 2013 Revolving Line to March 29, 2018 and reduced the interest rate to the London Interbank Offered Rate plus 2.25%, 2.75% and 2.75% on the 2013 Revolving Line, 2013 Term Loan and 2013 DDTL, respectively.

Prior to the Third Amendment, borrowings under the 2013 Term Loan and the 2013 DDTL accrued interest at a rate based on either the effective London Interbank Offered Rate (LIBOR) for certain interest periods selected by us, or a daily floating rate based on the BBA LIBOR as published by Reuters (or other commercially available source providing quotations of BBA LIBOR), plus in either case, a margin of 3.0%. Prior to the Third Amendment, the 2013 Revolving Line accrued interest at a rate based on either the effective LIBOR for certain interest periods selected by us, or a daily floating rate based on the BBA LIBOR, plus in either case, a margin of 2.5%. We were required to fix the rate of interest on at least 50% of the 2013 Term Loan and the 2013 DDTL through the purchase of an interest rate swap. The 2013 Term Loan and 2013 DDTL each have interest payments due at the end of the applicable LIBOR period, or monthly with respect to BBA LIBOR borrowings, and principal payments are due quarterly. The 2013 Revolving Line has interest payments due at the end of the applicable LIBOR period, or monthly with respect to BBA LIBOR borrowings. Effective June 5, 2013, we entered into an interest rate swap contract with an original notional amount of \$15.0 million and a maturity date of March 29, 2018 in order to hedge the risk of changes in the effective benchmark interest rate (LIBOR) associated with our 2013 Term Loan. The swap contract converted specific variable-rate debt into fixed-rate debt and fixed LIBOR associated with the 2013 Term Loan at 0.96% plus a bank margin of 3.0%. Effective November 29, 2013, we entered into a second interest rate swap contract with an original notional amount of \$5.0 million and a maturity date of March 29, 2018 in order to hedge the risk of changes in LIBOR associated with a portion of our 2013 DDTL. The swap contract converted specific variable-rate debt into fixed rate debt and fixed LIBOR associated with half of the 2013 DDTL amount at 0.93% plus a bank margin of 3.0%. The notional amount of our derivative instruments as of March 31, 2017 was \$4.5 million. These swap contracts were associated with reducing or eliminating interest rate risk and were designated as cash flow hedge instruments in accordance with ASC 815. We use interest-rate-related derivative instruments to manage our exposure related to changes in interest rates on our variable-rate debt instruments. We do not enter into derivative instruments for any purpose other than cash flow hedging and we do not speculate using derivative instruments.

As noted above under the heading “Borrowing Arrangements”, on May 2, 2017, we entered into the Credit Agreement to amend our credit facility with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co. as lenders. Immediately after entering into this Credit Agreement, we entered into a new interest rate swap contract with Bank of America with a notional amount of \$14.0 million and a maturity date of March 30, 2022 in order to hedge the risk of changes in the effective benchmark interest rate (LIBOR) associated with our Term Loan. The swap contract converted specific variable-rate debt into fixed-rate debt and fixed the LIBOR rate associated with the Term Loan at 1.86%. The interest rate swap was designated as a cash flow hedge instrument in accordance with ASC 815 “Derivatives and Hedging”. As a result of entering into the new interest rate swap contract, we unwound the previous interest rate swap contracts, and received an immaterial amount in proceeds.

As of March 31, 2017, the weighted effective interest rates, net of the impact of our interest rate swaps, on our Term Loan, DDTL and Revolving Line borrowings were 3.96%, 3.83% and 3.23%, respectively. Assuming no other changes which would affect the margin of the interest rate under our 2013 Term Loan, 2013 DDTL and 2013 Revolving Line, the effect of interest rate fluctuations on outstanding borrowings under our Credit Agreement as of March 31, 2017 over the next twelve months is quantified and summarized as follows:

<b>If compared to the rate as of March 31, 2017</b>	<b>Interest expense increase</b>	
	<b>(in thousands)</b>	
Interest rates increase by 1%	\$	66
Interest rates increase by 2%	\$	132

**Item 4. *Controls and Procedures.***

Disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) are designed to ensure that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms and that such information is accumulated and communicated to management, including the Chief Executive Officer and the Chief Financial Officer, to allow timely decisions regarding required disclosures.

As required by Rules 13a-15(e) and 15d-15(e) under the Exchange Act, our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of March 31, 2017. Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and our management necessarily was required to apply its judgment in evaluating and implementing our disclosure controls and procedures. Based upon the evaluation described above, our management concluded that our disclosure controls and procedures for the periods covered by this report were not effective, as of March 31, 2017, because of the material weaknesses in internal control over financial reporting described in Part II, Item 9A of our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 17, 2017 (the “2016 Form 10-K”). Management has concluded that the material weaknesses that were present at December 31, 2016 were also present at March 31, 2017.

Notwithstanding the assessment that our internal controls over financial reporting were not effective and that there were material weaknesses as identified in the 2016 Form 10-K, we believe that our financial statements contained in our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2017, fairly present our financial condition, results of operations and cash flows in all material respects.

As previously disclosed in the 2016 Form 10-K, to remediate the material weaknesses described under the subheading “Management’s Report on Internal Control Over Financial Reporting” in Item 9A of the 2016 Form 10-K, we plan to implement the remediation initiatives described under the subheading “Remediation Plan” in Item 9A of the 2016 Form 10-K and will continue to evaluate the remediation and may in the future implement additional measures.

We continue to take actions and make progress towards remediating the material weaknesses related to our internal control over financial reporting, as described above and in our 2016 Form 10-K. We have taken substantial steps in designing and implementing controls to remediate the material weaknesses in our internal controls over financial reporting. However, there were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15 and 15d-15 under the Exchange Act that occurred during the quarter ended March 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

### **Item 1.**        *Legal Proceedings.*

On April 14, 2017, anticipated representatives for the estate of an individual plaintiff filed a wrongful death complaint with the Suffolk Superior Court, in the County of Suffolk, Massachusetts, against the Company and other defendants, including Biostage, Inc. (f/k/a Harvard Apparatus Regenerative Technology, Inc.), our former subsidiary that was spun off in 2013, as well as another third party. The complaint seeks payment for an unspecified amount of damages and alleges that the plaintiff sustained terminal injuries allegedly caused by products, including synthetic trachea scaffolds and bioreactors, provided by certain of the named defendants and utilized in connection with surgeries performed by third parties in 2012 and 2013. The litigation is at an early stage and the Company intends to vigorously defend this case and has contacted its liability insurance carrier to request defense and indemnification of any losses incurred in connection with this lawsuit. While we believe that such claim is without merit, we are unable to predict the ultimate outcome of such litigation.

### **Item 1A.**     *Risk Factors.*

To our knowledge, and except to the extent additional factual information disclosed in this Quarterly Report on Form 10-Q relates to such risk factors, there has been no material changes in the risk factors described in “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2016, which was filed with the SEC on March 17, 2017.

**Item 5. Other Information.**

**Amendment of Material Agreement; and Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.**

On May 2, 2017, the Company and certain of its subsidiaries entered into an amendment to the Company's 2013 Credit Agreement with Bank of America, N.A., as agent, and Bank of America, N.A. and Brown Brothers Harriman & Co., as lenders, as evidenced by that certain Third Amended and Restated Credit Agreement (the "Restated Credit Agreement") and related loan documents, which such Restated Credit Agreement amended certain terms and conditions of the 2013 Credit Agreement, including among other things, (a) the consolidation, combination and restatement of the existing term loans and revolving loan balance under the 2013 Credit Agreement into a single term loan in an amount of \$14 million (the "Term Loan"), (b) provision of a revolving credit facility for working capital and acquisitions in an amount up to \$25 million (the "Revolving Line"), (c) extension of the maturity date for the Term Loan and Revolving Line to May 1, 2022, and (d) reduction and modification of the interest rate and margins such that the Term Loan and Revolving Line accrue interest at a rate based on either the effective London Interbank Offered Rate (LIBOR) for certain interest periods selected by the Company, or a daily floating rate based on LIBOR, plus a margin of 2.75% as to the Term Loan and 2.25% as to the Revolving Line.

Under the Restated Credit Agreement and related loan documents, the Term Loan and loans under the Revolving Line, or the Loans, continued to be guaranteed by all of the Company's direct and indirect domestic subsidiaries, and secured by substantially all of the assets of the Company and such guarantors. The Loans continue to also be subject to restrictive covenants under the Restated Credit Agreement, and financial covenants that require the Company and its subsidiaries to maintain certain financial ratios on a consolidated basis, including a maximum leverage, minimum fixed charge coverage and minimum working capital. Prepayment of the Loans continues to be allowed by the Credit Agreement at any time during the terms of the Loans. The Loans also continue to contain limitations on the Company's ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of \$6.0 million and for acquisitions funded solely with equity in excess of \$10.0 million.

The preceding description of the Restated Credit Agreement is subject to, and qualified in its entirety by reference to, the Restated Credit Agreement, which is attached as Exhibit 10.1 to this Quarterly Report on Form 10-Q and is incorporated herein by reference.

**Item 6. Exhibits**

**Exhibit  
Index**

10.1	Third Amended and Restated Credit Agreement dated as of May 1, 2017, by and among Harvard Bioscience, Inc. Bank of America, N.A. and Brown Brothers Harriman & Co.
31.1	Certification of Chief Financial Officer of Harvard Bioscience, Inc., pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Executive Officer of Harvard Bioscience, Inc., pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Financial Officer of Harvard Bioscience, Inc., pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Executive Officer of Harvard Bioscience, Inc., 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.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

\* This certification shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.



**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 undersigned thereunto duly authorized.

Date: May 5, 2017

HARVARD BIOSCIENCE, INC.

By:           / S/ JEFFREY A. DUCHEMIN            
**Jeffrey A. Duchemin**  
**Chief Executive Officer**

By:           / S/ ROBERT E. GAGNON            
**Robert E. Gagnon**  
**Chief Financial Officer**

**INDEX TO EXHIBITS**

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## EXHIBITS

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B	Amended and Restated Term Note
C	Third Amended and Restated Revolving Credit Note
D	Compliance Certificate
E-1	Assignment and Assumption
E-2	Administrative Questionnaire
F	Authorization to Share Information
G-1 to G-4	U.S. Tax Compliance Certificates



### THIRD AMENDED AND RESTATED CREDIT AGREEMENT

This THIRD AMENDED AND RESTATED CREDIT AGREEMENT (“Agreement”) is entered into as of May 1, 2017, among HARVARD BIOSCIENCE, INC., a Delaware corporation (the “Borrower”), BROWN BROTHERS HARRIMAN & CO. and each other lender from time to time party hereto (collectively, the “Lenders” and individually, a “Lender”), and BANK OF AMERICA, N.A., as Administrative Agent and L/C Issuer.

#### BACKGROUND:

The Borrower, the Administrative Agent and the Lenders entered into an Amended and Restated Revolving Credit Loan Agreement dated as of August 7, 2009, which was amended by First Amendment to Amended and Restated Revolving Credit Loan Agreement dated as of September 30, 2011, which was further amended by Second Amendment to Amended and Restated Revolving Credit Loan Agreement, Limited Consent and Limited Waiver dated as of October 4, 2012; which was further amended by a Second Amended and Restated Credit Agreement dated as of March 29, 2013, which was amended by that certain First Amendment to Second Amended and Restated Credit Agreement dated as of May 30, 2013; which was further amended by that certain Second Amendment to Second Amended and Restated Credit Agreement and Waiver dated as of October 31, 2013; which was further amended by that certain Third Amendment to Second Amended and Restated Credit Agreement dated as of April 24, 2015; which was further amended by that certain Fourth Amendment to Second Amended and Restated Credit Agreement dated as of June 30, 2015; which was further amended by that certain Fifth Amendment to Second Amended and Restated Credit Agreement dated as of November 5, 2015; and which was further amended by that certain Sixth Amendment to Second Amended and Restated Credit Agreement dated as of March 9, 2016 (collectively, the “Original Credit Agreement”).

The Borrower, the Guarantors, the Lenders and the Administrative Agent have agreed to amend the Original Credit Agreement and are entering into this Agreement, among other things, to consolidate, combine and restate certain outstanding indebtedness into a single term loan and to extend the maturity date, as provided herein. The Borrower and the Lenders hereby confirm, acknowledge and agree that, as of the date hereof, the outstanding principal amount of all Term Loans and certain amounts of outstanding Revolving Credit Loans under the Original Credit Agreement to be consolidated, combined and restated is \$14,000,000 (the “Restated Obligations”). The Lenders have indicated their willingness to restate the Restated Obligations, and to provide the amendments contained herein, and the L/C Issuer has indicated its willingness to issue letters of credit, in each case, on the terms and subject to the conditions set forth herein.

In consideration of the mutual covenants and agreements herein contained, the parties hereto covenant and agree as follows:

#### ARTICLE I DEFINITIONS AND ACCOUNTING TERMS

##### 1.01 Defined Terms

As used in this Agreement, the following terms shall have the meanings set forth below:

---

“ Adjusted EBITDA ” means for any period, EBITDA for such period after adjusting for (a) non-cash stock compensation expense, (b) restructuring charges related to Permitted Acquisitions contemplated at the time of such Permitted Acquisition and mutually agreed upon by the Borrower and the Administrative Agent, (c) acquired in-process research and development expense, (d) fair value adjustments resulting from purchase price allocation related to Permitted Acquisitions and (e) other non-recurring exceptional items of income or expense mutually agreed upon by the Borrower and the Administrative Agent.

“ Administrative Agent ” means Bank of America in its capacity as administrative agent under any of the Loan Documents, or any successor administrative agent.

“ Administrative Agent’s Office ” means the Administrative Agent’s address and, as appropriate, account as set forth on Schedule 11.02, or such other address or account as the Administrative Agent may from time to time notify to the Borrower and the Lenders.

“ Administrative Questionnaire ” means an Administrative Questionnaire in substantially the form of Exhibit E-2 or any other form approved by the Administrative Agent.

“ Affiliate ” means, with respect to any Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified.

“ Agency Fee ” has the meaning given such term in Section 2.09(b).

“ Aggregate Commitments ” means the Commitments of all the Lenders.

“ Aggregate Credit Exposures ” means, at any time, in respect of (a) the aggregate amount of the Term Loan outstanding at such time, and (b) the Revolving Credit Facility, the sum of (i) the unused portion of the Revolving Credit Facility at such time and (ii) the Total Revolving Credit Outstandings at such time.

“ Agreement ” means this Credit Agreement.

“ Applicable Percentage ” means (a) in respect of the Term Loan, with respect to any Term Lender at any time, the percentage (carried out to the ninth decimal place) of the Term Loan represented by the principal amount of such Term Lender’s portion of the Term Loan at such time, and (b) in respect of the Revolving Credit Facility, with respect to any Revolving Credit Lender at any time, the percentage (carried out to the ninth decimal place) of the Revolving Credit Facility represented by such Revolving Credit Lender’s Revolving Credit Commitment at such time. If the commitment of each Revolving Credit Lender to make Revolving Credit Loans and the obligation of the L/C Issuer to make L/C Credit Extensions have been terminated pursuant to Section 8.02, or if the Revolving Credit Commitments have expired, then the Applicable Percentage of each Revolving Credit Lender in respect of the Revolving Credit Facility shall be determined based on the Applicable Percentage of such Revolving Credit Lender in respect of the Revolving Credit Facility most recently in effect, giving effect to any subsequent assignments. The initial Applicable Percentage of each Lender in respect of each Facility is set forth opposite the name of such Lender on Schedule 2.01 or in the Assignment and Assumption pursuant to which such Lender becomes a party hereto, as applicable.

“ Applicable Rate ” means (a) in respect of the Term Loan, 2.75% per annum and (b) in respect of the Revolving Credit Facility, 2.25% per annum.

“ Applicable Revolving Credit Percentage ” means with respect to any Revolving Credit Lender at any time, such Revolving Credit Lender’s Applicable Percentage in respect of the Revolving Credit Facility at such time.

“ Appropriate Lender ” means, at any time, (a) with respect to the Term Loan or the Revolving Credit Facility, a Lender that has a Commitment with respect to the Revolving Credit Facility or holds a portion of the Term Loan or a Revolving Credit Loan, respectively, at such time and (b) with respect to the Letter of Credit Sublimit, (i) the L/C Issuer and (ii) if any Letters of Credit have been issued pursuant to Section 2.03(a), the Revolving Credit Lenders.

“ Approved Fund ” means any Fund that is administered or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) an entity or an Affiliate of an entity that administers or manages a Lender.

“ Assignee Group ” means two or more Eligible Assignees that are Affiliates of one another or two or more Approved Funds managed by the same investment advisor.

“ Assignment and Assumption ” means an assignment and assumption entered into by a Lender and an Eligible Assignee (with the consent of any party whose consent is required by Section 11.06(b)), and accepted by the Administrative Agent, in substantially the form of Exhibit E-1 or any other form (including electronic documentation generated by use of an electronic platform) approved by the Administrative Agent.

“ Attributable Indebtedness ” means, on any date, (a) in respect of any Capitalized Lease of any Person, the capitalized amount thereof that would appear on a balance sheet of such Person prepared as of such date in accordance with GAAP, (b) in respect of any Synthetic Lease Obligation, the capitalized amount of the remaining lease or similar payments under the relevant lease or other applicable agreement or instrument that would appear on a balance sheet of such Person prepared as of such date in accordance with GAAP if such lease or other agreement or instrument were accounted for as a Capitalized Lease and (c) all Synthetic Debt of such Person.

“ Audited Financial Statements ” means the audited consolidated balance sheet of the Borrower and its Subsidiaries for the fiscal year ended December 31, 2016, and the related consolidated statements of income or operations, shareholders’ equity and cash flows for such fiscal year of the Borrower and its Subsidiaries, including the notes thereto.

“ Availability Period ” means in respect of the Revolving Credit Facility, the period from and including the Third A&R Effective Date to the earliest of (i) the Maturity Date with respect to the Revolving Credit Facility, (ii) the date of termination of the Revolving Credit Commitments pursuant to Section 2.06, and (iii) the date of termination of the commitment of each Revolving Credit Lender to make Revolving Credit Loans and of the obligation of the L/C Issuer to make L/C Credit Extensions pursuant to Section 8.02.

“ Bail-In Action ” means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

“Bail-In Legislation” means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“Bank of America” means Bank of America, N.A. and its successors.

“Books” means all of Borrower’s or its Subsidiaries now owned or hereafter acquired books and records (including all of its records indicating, summarizing, or evidencing its assets (including the Accounts and Inventory) or liabilities, all of Borrower’s records relating to its business operations or financial condition, and all of its goods or General Intangibles related to such information).

“Borrower” has the meaning specified in the introductory paragraph hereto.

“Borrower Materials” has the meaning specified in Section 6.02.

“Borrowing” shall mean the making of simultaneous Revolving Credit Loans, having the same Interest Period if a Eurodollar Rate Loan or a LIBOR Daily Floating Rate Loan, made by each Lender pursuant to Section 2.01.

“Business Day” means any day other than a Saturday, Sunday or other day on which commercial banks are authorized to close under the Laws of, or are in fact closed in, the state where the Administrative Agent’s Office is located and, if such day relates to any Eurodollar Rate Loan, means any such day on which dealings in Dollar deposits are conducted by and between banks in the London interbank eurodollar market.

“Capital Expenditure” shall mean any payment made directly or indirectly for the purpose of acquiring or constructing fixed assets, real property or equipment which in accordance with GAAP would be added as a debit to the fixed asset account of the Person making such expenditure, including without limitation, amounts paid or payable under any conditional sale or other title retention agreement or under any lease or other periodic payment arrangement which is of such a nature that payment obligations of the lessee or obligor thereunder would be required by GAAP to be capitalized and shown as liabilities or otherwise appear in the category of property, plant or equipment or intangibles on the balance sheet of such lessee or obligor but excluding amounts expended in connection with Permitted Acquisitions (including reasonable capitalized transaction costs related to such Permitted Acquisitions).

“Capitalized Leases” means all leases that have been or should be, in accordance with GAAP, recorded as capitalized leases.

“Cash Collateral Account” means a blocked, non-interest bearing deposit account of one or more of the Loan Parties at Bank of America (or another commercial bank selected in compliance with Section 6.19) in the name of the Administrative Agent and under the sole dominion and control of the Administrative Agent, and otherwise established in a manner reasonably satisfactory to the Administrative Agent.

“Cash Collateralize” has the meaning specified in Section 2.03(g).

“ Cash Equivalents ” shall mean (a) negotiable certificates of deposit, time deposits (including sweep accounts), demand deposits and bankers’ acceptances having a maturity of nine months or less and issued by any United States financial institution having capital and surplus and undivided profits aggregating at least \$100,000,000 and rated Prime-1 by Moody’s Investors Service, Inc. or A-1 by Standard & Poor’s Ratings Group or issued by the Administrative Agent or any Lender; (b) corporate obligations having a maturity of nine months or less and rated Prime-1 by Moody’s Investors Service, Inc. or A-1 by Standard & Poor’s Ratings Group or issued by the Administrative Agent or any Lender; (c) any direct obligation of the United States of America or any agency or instrumentality thereof, or of any state or municipality thereof, (i) which has a remaining maturity at the time of purchase of not more than one year or which is subject to a repurchase agreement with the Administrative Agent or any Lender (or any other financial institution referred to in clause (a) above) exercisable within one year from the time of purchase and (ii) which, in the case of obligations of any state or municipality, is rated AA or better by Moody’s Investors Services, Inc. or AA or better by Standard & Poor’s Ratings Group; and (d) any mutual fund or other pooled investment vehicle rated AA or better by Moody’s Investors Service, Inc. or AA or better by Standard & Poor’s Ratings Group which invests principally in obligations described above.

“ Cash Management Agreement ” means any agreement to provide cash management services, including treasury, depository, overdraft, credit or debit card, electronic funds transfer, ACH transfer and other cash management arrangements.

“ Cash Management Bank ” means any Person that, at the time it enters into a Cash Management Agreement, is a Lender or an Affiliate of a Lender, in its capacity as a party to such Cash Management Agreement.

“ CERCLA ” means the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

“ CERCLIS ” means the Comprehensive Environmental Response, Compensation and Liability Information System maintained by the U.S. Environmental Protection Agency.

“ CFC ” means a Person that is a controlled foreign corporation under Section 957 of the Code.

“ Change in Law ” means the occurrence, after the date of this Agreement, of any of the following: (a) the adoption or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (c) the making or issuance of any request, rule, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (y) all requests, rules, guidelines or directives promulgated by the Bank for International settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a “Change in Law”, regardless of the date enacted, adopted or issued.

“ Change of Control ” means an event or series of events by which:

(a) any “person” or “group” (as such terms are used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, but excluding any employee benefit plan of such person or its subsidiaries, and any person or entity acting in its capacity as trustee, agent or other fiduciary or administrator of any such plan) becomes the “beneficial owner” (as defined in Rules 13d-3 and 13d-5 under the Securities Exchange Act of 1934, except that a person or group shall be deemed to have “beneficial ownership” of all securities that such person or group has the right to acquire, whether such right is exercisable immediately or only after the passage of time (such right, an “ option right ”)), directly or indirectly, of 35% or more of the equity securities of the Borrower entitled to vote for members of the board of directors or equivalent governing body of the Borrower on a fully-diluted basis (and taking into account all such securities that such “person” or “group” has the right to acquire pursuant to any option right); or

(b) during any period of 12 consecutive months, a majority of the members of the board of directors or other equivalent governing body of the Borrower cease to be composed of individuals (i) who were members of that board or equivalent governing body on the first day of such period, (ii) whose election or nomination to that board or equivalent governing body was approved by individuals referred to in clause (i) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body or (iii) whose election or nomination to that board or other equivalent governing body was approved by individuals referred to in clauses (i) and (ii) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body; or

(c) any Person or two or more Persons acting in concert shall have acquired by contract or otherwise, or shall have entered into a contract or arrangement that, upon consummation thereof, will result in its or their acquisition of the power to exercise, directly or indirectly, a controlling influence over the management or policies of the Borrower, or control over the equity securities of the Borrower entitled to vote for members of the board of directors or equivalent governing body of the Borrower on a fully-diluted basis (and taking into account all such securities that such Person or Persons have the right to acquire pursuant to any option right) representing 35% or more of the combined voting power of such securities.

“ Code ” means the Internal Revenue Code of 1986.

“ Collateral ” means all of the “ Collateral ” and “ Mortgaged Property ” referred to in the Collateral Documents and all of the other property that is or is intended under the terms of the Collateral Documents to be subject to Liens in favor of the Administrative Agent for the benefit of the Secured Parties.

“ Collateral Documents ” means, collectively, the Security Agreement, the Pledge Agreement, the Intellectual Property Security Agreement, the control agreements, each of the mortgages, collateral assignments, Security Agreement Supplements, IP Security Agreement Supplements, security agreements, pledge agreements or other similar agreements delivered to the Administrative Agent pursuant to Section 6.12, and each of the other agreements, instruments or documents that creates or purports to create a Lien in favor of the Administrative Agent for the benefit of the Secured Parties.

“ Commitment ” means (a) a Revolving Credit Commitment, or (b) the amount of the applicable Lender’s portion of the Term Loan in relation to the aggregate amount of the Term Loan outstanding at such time, as the context may require.

“ Committed Loan Notice ” means a notice of (a) a Revolving Credit Borrowing, (b) a conversion of Loans from one Type to the other, or (c) a continuation of Eurodollar Rate Loans, pursuant to Section 2.02(a), which shall be substantially in the form of Exhibit A or such other form as may be approved by the Administrative Agent (including any form on an electronic platform or electronic transmission system as shall be approved by the Administrative Agent), appropriately completed and signed by a Responsible Officer of the Borrower.

“ Commodity Exchange Act ” means the Commodity Exchange Act (7 U.S.C. § 1 *et seq.* ), as amended from time to time, and any successor statute.

“ Compliance Certificate ” means a certificate substantially in the form of Exhibit D.

“ Contractual Obligation ” means, as to any Person, any provision of any security issued by such Person or of any agreement, instrument or other undertaking to which such Person is a party or by which it or any of its property is bound.

“ Control ” means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ability to exercise voting power, by contract or otherwise. “ Controlling ” and “ Controlled ” have meanings correlative thereto.

“ Cost ” means the calculated cost of Inventory, as determined from invoices received by Borrower or any of its Subsidiaries, Borrower’s or such Subsidiaries’ purchase journals or stock ledgers, based upon Borrower’s accounting practices, known to Administrative Agent, which practices are in effect on the date on which this Agreement was executed. “Cost” does not include any inventory capitalization costs inclusive of advertising, but may include other charges used in Borrower’s determination of cost of goods sold and bringing goods to market, all within Administrative Agent’s reasonable discretion and in accordance with GAAP.

“ Credit Extension ” means each of the following: (a) a Borrowing and (b) an L/C Credit Extension.

“ Debtor Relief Laws ” means the Bankruptcy Code of the United States, and all other liquidation, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief Laws of the United States or other applicable jurisdictions from time to time in effect and affecting the rights of creditors generally.

“ Default ” means any event or condition that constitutes an Event of Default or that, with the giving of any notice, the passage of time, or both, would be an Event of Default.

“Default Rate” means (a) when used with respect to Obligations other than Letter of Credit Fees, an interest rate equal to (i) the LIBOR Daily Floating Rate plus (ii) the Applicable Rate, if any, applicable to LIBOR Daily Floating Rate Loans under the Term Loan plus (iii) 2% per annum; provided, however, that with respect to a Eurodollar Rate Loan, the Default Rate shall be an interest rate equal to the interest rate (including any Applicable Rate) otherwise applicable to such Loan plus 2% per annum and (b) when used with respect to Letter of Credit Fees, a rate equal to the Applicable Rate plus 2% per annum.

“Defaulting Lender” means, subject to Section 2.15(b), any Lender that (a) has failed to (i) fund all or any portion of its Loans within two (2) Business Days of the date such Loans were required to be funded hereunder unless such Lender notifies the Administrative Agent and the Borrower in writing that such failure is the result of such Lender’s determination that one or more conditions precedent to funding (each of which conditions precedent, together with any applicable default, shall be specifically identified in such writing) has not been satisfied, or (ii) pay to the Administrative Agent, the L/C Issuer or any other Lender any other amount required to be paid by it hereunder (including in respect of its participation in Letters of Credit) within two (2) Business Days of the date when due, (b) has notified the Borrower, the Administrative Agent or the L/C Issuer in writing that it does not intend to comply with its funding obligations hereunder, or has made a public statement to that effect (unless such writing or public statement relates to such Lender’s obligation to fund a Loan hereunder and states that such position is based on such Lender’s determination that a condition precedent to funding (which condition precedent, together with any applicable default, shall be specifically identified in such writing or public statement) cannot be satisfied), (c) has failed, within three (3) Business Days after written request by the Administrative Agent or the Borrower, to confirm in writing to the Administrative Agent and the Borrower that it will comply with its prospective funding obligations hereunder ( provided that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon receipt of such written confirmation by the Administrative Agent and the Borrower), or (d) has, or has a direct or indirect parent company that has, (i) become the subject of a proceeding under any Debtor Relief Law, (ii) had appointed for it a receiver, custodian, conservator, trustee, administrator, assignee for the benefit of creditors or similar Person charged with reorganization or liquidation of its business or assets, including the Federal Deposit Insurance Corporation or any other state or federal regulatory authority acting in such a capacity, or (iii) become the subject of a Bail-in Action; provided that a Lender shall not be a Defaulting Lender solely by virtue of the ownership or acquisition of any Equity Interest in that Lender or any direct or indirect parent company thereof by a Governmental Authority so long as such ownership interest does not result in or provide such Lender with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Lender (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made with such Lender. Any determination by the Administrative Agent that a Lender is a Defaulting Lender under any one or more of clauses (a) through (d) above, and the effective date of such status, shall be conclusive and binding absent manifest error, and such Lender shall be deemed to be a Defaulting Lender (subject to Section 2.15(b)) as of the date established therefor by the Administrative Agent in a written notice of such determination, which shall be delivered by the Administrative Agent to the Borrower, the L/C Issuer and each other Lender promptly following such determination.



“Designated Jurisdiction” means any country or territory to the extent that such country or territory itself is the subject of any Sanction (including, without limitation, Crimea, Cuba, Iran, North Korea, Sudan and Syria).

“Disposition” or “Dispose” means the sale, transfer, license, lease or other disposition (including any sale and leaseback transaction) of any property by any Person (or the granting of any option or other right to do any of the foregoing), including any sale, assignment, transfer or other disposal, with or without recourse, of any notes or accounts receivable or any rights and claims associated therewith.

“Dollar” and “\$” mean lawful money of the United States.

“Domestic Subsidiary” means any Subsidiary that is organized under the laws of any political subdivision of the United States.

“EBITDA” means for any period, Net Income for such period, after restoring thereto amounts deducted for (a) federal and state taxes in respect of income and profits, (b) Interest Expense and (c) depreciation and amortization, as determined in accordance with GAAP.

“EEA Financial Institution” means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

“EEA Member Country” means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

“EEA Resolution Authority” means any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

“Eligible Assignee” means any Person that meets the requirements to be an assignee under Section 11.06(b)(iii), (v) and (vi) (subject to such consents, if any, as may be required under Section 11.06(b)(iii)).

“Eligible Inventory” means Inventory of the Borrower and its Subsidiaries, the value of which shall be determined by its book value determined in accordance with GAAP; provided, however, that none of the following classes of Inventory shall be deemed to be Eligible Inventory:

- (a) Reserved;
- (b) Inventory that is obsolete, unusable or otherwise unavailable for sale;
- (c) Inventory consisting of promotional, marketing, packaging or shipping materials and supplies;

- (d) Inventory that fails to meet all standards imposed by any Governmental Authority having regulatory authority over such Inventory or its use or sale;
- (e) Inventory that is subject to any licensing, patent, royalty, trademark, trade name or copyright agreement with any third party from which the Borrower or any of its Subsidiaries has received notice of a dispute in respect of any such agreement;
- (f) Reserved;
- (g) Inventory that is not in the possession of or under the sole control of the Borrower or any of its Subsidiaries, unless the applicable third party has executed a collateral access agreement in favor of the Administrative Agent in form and substance reasonably acceptable to Administrative Agent;
- (h) Inventory consisting of work in progress; and
- (i) Inventory with respect to which the representations and warranties set forth herein applicable to Inventory are not correct.

“ Eligible Receivables ” means Receivables of the Borrower and its Subsidiaries, the value of which shall be determined by taking into consideration, among other factors, their book value determined in accordance with GAAP; provided, however, that none of the following classes of Receivables shall be deemed to be Eligible Receivables:

- (a) Receivables that do not arise out of sales of goods or rendering of services in the ordinary course of the Borrower’s or the relevant Subsidiary’s business;
- (b) Receivables that are otherwise on terms other than those normal or customary in the Borrower’s or the relevant Subsidiary’s business;
- (c) Receivables owing from any Person that is an Affiliate of the Borrower;
- (d) Receivables more than 90 days past original invoice date or more than 60 days past the date due;
- (e) Receivables owing from any Person from which an aggregate amount of more than 20% of the Receivables owing therefrom is more than 60 days past the date due;
- (f) Receivables owing from any Person that (i) has disputed liability for any Receivable owing from such Person or (ii) has otherwise asserted any claim, demand or liability against the Borrower or any of its Subsidiaries, whether by action, suit, counterclaim or otherwise; provided that for purposes of subclause (f)(i), such Receivables shall be excluded only to the extent of the amounts being disputed by such Person at any date of determination;
- (g) Receivables owing from any Person that shall take or be the subject of any action or proceeding of a type described in Section 8.01(f);

(h) Receivables (i) owing from any Person that is also a supplier to or creditor of the Borrower or any of its Subsidiaries unless such Person has waived any right of setoff in a manner acceptable to the Administrative Agent or (ii) representing any manufacturer's or supplier's credits, discounts, incentive plans or similar arrangements entitling the Borrower or any of its Subsidiaries to discounts on future purchase therefrom;

(i) Reserved;

(j) Receivables arising out of sales on a bill-and-hold, guaranteed sale, sale-or-return, sale on approval or consignment basis or subject to any right of return, setoff or charge back;

(k) Receivables owing from an account debtor that is an agency, department or instrumentality of the United States or any state thereof unless the Borrower or its relevant Subsidiary shall have satisfied the requirements of the Assignment of Claims Act of 1940, and any similar state legislation and the Administrative Agent is satisfied as to the absence of setoffs, counterclaims and other defenses on the part of such account debtor; and

(l) Receivables with respect to which the representations and warranties set forth in herein applicable to Receivables are not correct.

“Environmental Laws” means any and all Federal, state, local, and foreign statutes, laws, regulations, ordinances, rules, judgments, orders, decrees, permits, concessions, grants, franchises, licenses, agreements or governmental restrictions relating to pollution and the protection of the environment or the release of any materials into the environment, including those related to hazardous substances or wastes, air emissions and discharges to waste or public systems.

“Environmental Liability” means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties or indemnities), of the Borrower, any other Loan Party or any of their respective Subsidiaries directly or indirectly resulting from or based upon (a) violation of any Environmental Law, (b) the generation, use, handling, transportation, storage, treatment or disposal of any Hazardous Materials, (c) exposure to any Hazardous Materials, (d) the release or threatened release of any Hazardous Materials into the environment or (e) any contract, agreement or other consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

“Equity Interests” means, with respect to any Person, all of the shares of capital stock of (or other ownership or profit interests in) such Person, all of the warrants, options or other rights for the purchase or acquisition from such Person of shares of capital stock of (or other ownership or profit interests in) such Person, all of the securities convertible into or exchangeable for shares of capital stock of (or other ownership or profit interests in) such Person or warrants, rights or options for the purchase or acquisition from such Person of such shares (or such other interests), and all of the other ownership or profit interests in such Person (including partnership, member or trust interests therein), whether voting or nonvoting, and whether or not such shares, warrants, options, rights or other interests are outstanding on any date of determination.

“ERISA” means the Employee Retirement Income Security Act of 1974.

“ERISA Affiliate” means any trade or business (whether or not incorporated) under common control with the Borrower within the meaning of Section 414(b) or (c) of the Code (and Sections 414(m) and (o) of the Code for purposes of provisions relating to Section 412 of the Code).

“ERISA Event” means (a) a Reportable Event with respect to a Pension Plan; (b) a withdrawal by the Borrower or any ERISA Affiliate from a Pension Plan subject to Section 4063 of ERISA during a plan year in which it was a substantial employer (as defined in Section 4001(a)(2) of ERISA) or a cessation of operations that is treated as such a withdrawal under Section 4062(e) of ERISA; (c) a complete or partial withdrawal by the Borrower or any ERISA Affiliate from a Multiemployer Plan or notification that a Multiemployer Plan is in reorganization; (d) the filing of a notice of intent to terminate, the treatment of a Plan amendment as a termination under Section 4041 or 4041A of ERISA, or the commencement of proceedings by the PBGC to terminate a Pension Plan or Multiemployer Plan; (e) an event or condition which constitutes grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Pension Plan or Multiemployer Plan; or (f) the imposition of any liability under Title IV of ERISA, other than for PBGC premiums due but not delinquent under Section 4007 of ERISA, upon the Borrower or any ERISA Affiliate.

“EU Bail-In Legislation Schedule” means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

“Eurodollar Base Rate” has the meaning specified in the definition of Eurodollar Rate.

“Eurodollar Rate” means:

(a) for any Interest Period with respect to a Eurodollar Rate Loan, the rate per annum equal to the London Interbank Offered Rate (“LIBOR”) or a comparable or successor rate, which rate is approved by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at approximately 11:00 a.m., London time, two Business Days prior to the commencement of such Interest Period, for Dollar deposits (for delivery on the first day of such Interest Period) with a term equivalent to such Interest Period; and if the Eurodollar Rate shall be less than zero, such rate shall be deemed zero for purposes of this Agreement; and

(b) for any interest calculation with respect to a Base Rate Loan on any date, the rate per annum equal to LIBOR, at or about 11:00 a.m., London time determined two Business Days prior to such date for U.S. Dollar deposits with a term of one month commencing that day;

provided that (i) if the Eurodollar Rate shall be less than zero, such rate shall be deemed zero for purposes of this Agreement, and (ii) to the extent a comparable or successor rate is approved by the Administrative Agent in connection herewith, the approved rate shall be applied in a manner consistent with market practice; provided further that to the extent such market practice is not administratively feasible for the Administrative Agent, such approval rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“Eurodollar Rate Loan” means a Loan that bears interest at a rate based on the Eurodollar Rate.

“Eurodollar Reserve Percentage” means, for any day during any Interest Period, the reserve percentage (expressed as a decimal, carried out to five decimal places) in effect on such day, whether or not applicable to any Lender, under regulations issued from time to time by the FRB for determining the maximum reserve requirement (including any emergency, supplemental or other marginal reserve requirement) with respect to Eurocurrency funding (currently referred to as “Eurocurrency liabilities”). The Eurodollar Rate for each outstanding Eurodollar Rate Loan shall be adjusted automatically as of the effective date of any change in the Eurodollar Reserve Percentage.

“Event of Default” has the meaning specified in Section 8.01.

“Excluded Swap Obligation” means, with respect to any Guarantor, any Swap Obligation if, and to the extent that, all or a portion of the Guaranty of such Guarantor of, or the grant by such Guarantor of a security interest to secure, such Swap Obligation (or any Guaranty thereof) is or becomes illegal under the Commodity Exchange Act or any rule, regulation or order of the Commodity Futures Trading Commission (or the application or official interpretation of any thereof) by virtue of such Guarantor’s failure for any reason to constitute an “eligible contract participant” as defined in the Commodity Exchange Act (determined after giving effect to Section 11.20(b) and any other “keepwell, support or other agreement” for the benefit of such Guarantor and any and all guarantees of such Guarantor’s Swap Obligations by other Loan Parties) at the time the Guaranty of such Guarantor, or a grant by such Guarantor of a security interest, becomes effective with respect to such Swap Obligation. If a Swap Obligation arises under a master agreement governing more than one swap, such exclusion shall apply only to the portion of such Swap Obligation that is attributable to swaps for which such Guaranty or security interest is or becomes excluded in accordance with the first sentence of this definition.

“Excluded Taxes” means any of the following Taxes imposed on or with respect to any Recipient or required to be withheld or deducted from a payment to a Recipient, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its Lending Office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Loan or Commitment pursuant to a law in effect on the date on which (i) such Lender acquires such interest in the Loan or Commitment (other than pursuant to an assignment request by the Borrower under Section 10.13) or (ii) such Lender changes its Lending Office, except in each case to the extent that, pursuant to Section 3.01(a)(ii), (a)(iii) or (c), amounts with respect to such Taxes were payable either to such Lender’s assignor immediately before such Lender became a party hereto or to such Lender immediately before it changed its Lending Office, (c) Taxes attributable to such Recipient’s failure to comply with Section 3.01(e) and (d) any U.S. federal withholding Taxes imposed pursuant to FATCA.

“Extraordinary Receipt” means any cash received by or paid to or for the account of any Person not in the ordinary course of business, including tax refunds, pension plan reversions, proceeds of insurance (other than proceeds of business interruption insurance to the extent such proceeds constitute compensation for lost earnings), condemnation awards (and payments in lieu thereof), indemnity payments and any purchase price adjustments; provided, however, that an Extraordinary Receipt shall not include cash receipts from proceeds of insurance, condemnation awards (or payments in lieu thereof) or indemnity payments to the extent that such proceeds, awards or payments (a) in respect of loss or damage to equipment, fixed assets or real property are applied (or in respect of which expenditures were previously incurred) to replace or repair the equipment, fixed assets or real property in respect of which such proceeds were received in accordance with the terms of Section 2.05(b)(v) or (b) are received by any Person in respect of any third party claim against such Person and applied to pay (or to reimburse such Person for its prior payment of) such claim and the costs and expenses of such Person with respect thereto.

“Facility” means the Term Loan or the Revolving Credit Facility, as the context may require.

“FATCA” means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantially comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof and any agreements entered into pursuant to Section 1471(b)(1) of the Code, any intergovernmental agreements implementing any of the foregoing, and any fiscal or regulatory legislation, rules or procedures adopted pursuant to the foregoing.

“Federal Funds Rate” means, for any day, the rate per annum equal to the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System arranged by Federal funds brokers on such day, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; provided that (a) if such day is not a Business Day, the Federal Funds Rate for such day shall be such rate on such transactions on the next preceding Business Day as so published on the next succeeding Business Day, and (b) if no such rate is so published on such next succeeding Business Day, the Federal Funds Rate for such day shall be the average rate (rounded upward, if necessary, to a whole multiple of 1/100 of 1%) charged to Bank of America on such day on such transactions as determined by the Administrative Agent.

“Foreign Lender” means any Lender that is organized under the Laws of a jurisdiction other than that in which the Borrower is resident for tax purposes (including such a Lender when acting in the capacity of the L/C Issuer). For purposes of this definition, the United States, each State thereof and the District of Columbia shall be deemed to constitute a single jurisdiction. “FRB” means the Board of Governors of the Federal Reserve System of the United States.

“Fronting Exposure” means, at any time there is a Defaulting Lender that is a Revolving Lender with respect to the L/C Issuer, such Defaulting Lender’s Applicable Percentage of the Outstanding L/C Obligations other than L/C Obligations as to which such Defaulting Lender’s participation obligation has been reallocated to other Revolving Lenders or Cash Collateralized in accordance with the terms hereof.

“Fund” means any Person (other than a natural person) that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its activities.

“Funded Debt” means all Indebtedness to the Lenders, all Indebtedness for borrowed money incurred in connection with Permitted Acquisitions which is not subordinated to the Indebtedness owing to the Lenders hereunder and all Indebtedness in respect of Capital Leases.

“GAAP” means generally accepted accounting principles in the United States set forth in the opinions and pronouncements of the Accounting Principles Board and the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or such other principles as may be approved by a significant segment of the accounting profession in the United States, that are applicable to the circumstances as of the date of determination, consistently applied.

“General Intangible” means all of Borrowers’ and its Subsidiaries’ now owned or hereafter acquired right, title, and interest with respect to “general intangibles” (as such term is defined from time to time in the Code), and any and all supporting obligations in respect thereof.

“Governmental Authority” means the government of the United States or any other nation, or of any political subdivision thereof, whether state or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government (including any supra-national bodies such as the European Union or the European Central Bank).

“Guarantee” means, as to any Person, any (a) any obligation, contingent or otherwise, of such Person guaranteeing or having the economic effect of guaranteeing any Indebtedness or other obligation payable or performable by another Person (the “primary obligor”) in any manner, whether directly or indirectly, and including any obligation of such Person, direct or indirect, (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation, (ii) to purchase or lease property, securities or services for the purpose of assuring the obligee in respect of such Indebtedness or other obligation of the payment or performance of such Indebtedness or other obligation, (iii) to maintain working capital, equity capital or any other financial statement condition or liquidity or level of income or cash flow of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other obligation, or (iv) entered into for the purpose of assuring in any other manner the obligee in respect of such Indebtedness or other obligation of the payment or performance thereof or to protect such obligee against loss in respect thereof (in whole or in part), or (b) any Lien on any assets of such Person securing any Indebtedness or other obligation of any other Person, whether or not such Indebtedness or other obligation is assumed by such Person (or any right, contingent or otherwise, of any holder of such Indebtedness to obtain any such Lien). The amount of any Guarantee shall be deemed to be an amount equal to the stated or determinable amount of the related primary obligation, or portion thereof, in respect of which such Guarantee is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by the guaranteeing Person in good faith. The term “Guarantee” as a verb has a corresponding meaning.

“Guarantors” means, collectively, all direct and indirect Domestic Subsidiaries of the Borrower and each other Subsidiary of the Borrower that shall be required to execute and deliver a guaranty or guaranty supplement pursuant to Section 6.12.

“Guaranty” means, collectively, that certain Guaranty dated as of March 29, 2013 by and among Borrower, the Guarantors and the Administrative Agent, together with each other guaranty and guaranty supplement delivered pursuant to Section 6.12, in each case as amended, modified, supplemented or restated from time to time.

“Hazardous Materials” means all explosive or radioactive substances or wastes and all hazardous or toxic substances, wastes or other pollutants, including petroleum or petroleum distillates, asbestos or asbestos-containing materials, polychlorinated biphenyls, radon gas, infectious or medical wastes and all other substances or wastes of any nature regulated pursuant to any Environmental Law.

“Hedge Bank” means any Person that, at the time it enters into an interest rate Swap Contract required or permitted under Article VI or VII, is a Lender or an Affiliate of a Lender, in its capacity as a party to such Swap Contract.

“Impacted Loans” has the meaning specified in Section 3.03.

“Indebtedness” shall mean as applied to any Person, (i) all items (except items of capital or surplus or of retained earnings) which in accordance with GAAP would be included in determining total liabilities as shown on the liability side of the balance sheet of such Person as of the date of which Indebtedness is to be determined, including without limitation subordinated debt, if any, and any Capital Lease, (ii) all indebtedness secured by any mortgage, pledge, lien or conditional sale or other title retention agreement to which any property or asset owned or held by such Person is subject, whether or not the indebtedness secured thereby shall have been assumed, and (iii) all indebtedness of others which such Person has directly or indirectly guaranteed, endorsed (otherwise than for collection or deposit in the ordinary course of business), discounted or sold with recourse or agreed (contingently or otherwise) to purchase or repurchase or otherwise acquire, or in respect of which such Person has agreed to supply or advance funds (whether by way of loan, stock purchase, capital contributions or otherwise) or otherwise to become directly or indirectly liable. For avoidance of doubt, the parties hereby agree that the term Indebtedness shall not include the issuance of any equity interests by the Borrower and/or any of its Subsidiaries, whether such equity interests constitute common stock or preferred stock.



“Indemnified Taxes” means (a) Taxes other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of any Loan Party under any Loan Document and (b) to the extent not otherwise described in (a), Other Taxes.

“Indemnitees” has the meaning specified in Section 11.04(b).

“Information” has the meaning specified in Section 11.07.

“Intellectual Property Security Agreement” means that certain Intellectual Property Security Agreement dated as of March 29, 2013 by and among the Borrower, the Administrative Agent, and the other parties identified as “Grantors” therein, as amended, modified, supplemented or restated from time to time.

“Interest Charges” means, for any Measurement Period, the sum of (a) all interest, premium payments, debt discount, fees, charges and related expenses in connection with borrowed money (including capitalized interest) or in connection with the deferred purchase price of assets, in each case to the extent treated as interest in accordance with GAAP, (b) all interest paid or payable with respect to discontinued operations and (c) the portion of rent expense under Capitalized Leases that is treated as interest in accordance with GAAP, in each case, of or by the Borrower and its Subsidiaries on a consolidated basis for the most recently completed Measurement Period.

“Interest Expense” means cash Interest Charges paid or payable on Funded Debt.

“Interest Payment Date” means, (a) as to any Eurodollar Rate Loan, the last day of each Interest Period applicable to such Loan and the Maturity Date of the Facility under which such Loan was made; provided, however, that if any Interest Period for a Eurodollar Rate Loan exceeds three months, the respective dates that fall every three months after the beginning of such Interest Period shall also be Interest Payment Dates; and (b) as to any LIBOR Daily Floating Rate Loan, the last Business Day of each calendar month and the Maturity Date of the Facility under which such Loan was made.

“Interest Period” means, as to each Eurodollar Rate Loan, the period commencing on the date such Eurodollar Rate Loan is disbursed or converted to or continued as a Eurodollar Rate Loan and ending on the date one, two or three months thereafter, as selected by the Borrower in its Committed Loan Notice; provided that:

(a) any Interest Period that would otherwise end on a day that is not a Business Day shall be extended to the next succeeding Business Day unless such Business Day falls in another calendar month, in which case such Interest Period shall end on the next preceding Business Day;

(b) any Interest Period that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest Period) shall end on the last Business Day of the calendar month at the end of such Interest Period; and

(c) no Interest Period shall extend beyond the Maturity Date of the Facility under which such Loan was made, unless otherwise consented to by the Borrower, Lenders and Administrative Agent.

“Inventory” means all Borrower’s and its Subsidiaries now owned or hereafter acquired right, title, and interest with respect to inventory, including goods held for sale or lease or to be furnished under a contract of service, goods that are leased by Borrower or any of its Subsidiaries as lessor, goods that are furnished by Borrower or any of its Subsidiaries under a contract of service, and raw materials, work in process, or materials used or consumed in Borrower’s or any of its Subsidiaries’ business.

“Investment” means, as to any Person, any direct or indirect acquisition or investment by such Person, whether by means of (a) the purchase or other acquisition of Equity Interests of another Person, (b) a loan, advance or capital contribution to, Guarantee or assumption of debt of, or purchase or other acquisition of any other debt or interest in, another Person, or (c) the purchase or other acquisition (in one transaction or a series of transactions) of assets of another Person that constitute a business unit or all or a substantial part of the business of, such Person. For purposes of covenant compliance, the amount of any Investment shall be the amount actually invested, without adjustment for subsequent increases or decreases in the value of such Investment.

“IP Rights” has the meaning specified in Section 5.16.

“IP Security Agreement Supplement” has the meaning specified in the Security Agreement.

“IRS” means the United States Internal Revenue Service.

“ISP” means, with respect to any Letter of Credit, the “International Standby Practices 1998” published by the Institute of International Banking Law & Practice, Inc. (or such later version thereof as may be in effect at the time of issuance).

“Issuer Documents” means with respect to any Letter of Credit, the Letter of Credit Application, and any other document, agreement and instrument entered into by the L/C Issuer and the Borrower (or any Subsidiary) or in favor of the L/C Issuer and relating to such Letter of Credit.

“Laws” means, collectively, all international, foreign, Federal, state and local statutes, treaties, rules, guidelines, regulations, ordinances, codes and administrative or judicial precedents or authorities, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any Governmental Authority, in each case whether or not having the force of law.

“L/C Advance” means, with respect to each Revolving Credit Lender, such Lender’s funding of its participation in any L/C Borrowing in accordance with its Applicable Revolving Credit Percentage.

“L/C Borrowing” means an extension of credit resulting from a drawing under any Letter of Credit which has not been reimbursed on the date when made or refinanced as a Revolving Credit Borrowing.

“L/C Credit Extension” means, with respect to any Letter of Credit, the issuance thereof or extension of the expiry date thereof, or the increase of the amount thereof.

“L/C Issuer” means Bank of America in its capacity as issuer of Letters of Credit hereunder, or any successor issuer of Letters of Credit hereunder.

“L/C Obligations” means, as at any date of determination, the aggregate amount available to be drawn under all outstanding Letters of Credit plus the aggregate of all Unreimbursed Amounts, including all L/C Borrowings. For purposes of computing the amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.06. For all purposes of this Agreement, if on any date of determination a Letter of Credit has expired by its terms but any amount may still be drawn thereunder by reason of the operation of Rule 3.14 of the ISP, such Letter of Credit shall be deemed to be “outstanding” in the amount so remaining available to be drawn.

“Lender” has the meaning specified in the introductory paragraph hereto and, as the context requires.

“Lending Office” means, as to any Lender, the office or offices of such Lender described as such in such Lender’s Administrative Questionnaire, or such other office or offices as a Lender may from time to time notify the Borrower and the Administrative Agent.

“Letter of Credit” means any standby letter of credit issued hereunder and, for avoidance of doubt, excludes any commercial, documentary or other types of letters of credit.

“Letter of Credit Application” means an application and agreement for the issuance or amendment of a Letter of Credit in the form from time to time in use by the L/C Issuer.

“Letter of Credit Expiration Date” means the day that is seven days prior to the Maturity Date then in effect for the Revolving Credit Facility (or, if such day is not a Business Day, the next preceding Business Day).

“Letter of Credit Fee” has the meaning specified in Section 2.03(i).

“Letter of Credit Sublimit” means an amount equal to \$3,000,000. The Letter of Credit Sublimit is part of, and not in addition to, the Revolving Credit Facility.

“LIBOR” for any Interest Period with respect to a Eurodollar Rate Loan or a Loan bearing interest at the LIBOR Daily Floating Rate, the rate per annum equal to the London Interbank Offered Rate or a comparable or successor rate, which rate is approved by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at approximately 11:00 a.m., London time, two Business Days prior to the commencement of an Interest Period or the LIBOR Rate, respectively, for Dollar deposits (for delivery on the first day of such Interest Period or period for such LIBOR Rate) LIBOR with a term equivalent to one (1) month term beginning on that date which LIBOR is effective for such period

“LIBOR Daily Floating Rate” means: LIBOR with a term equivalent to one (1) month term beginning on that date which LIBOR is effective for such period provided that: (i) to the extent a comparable or successor rate is approved by the Administrative Agent in connection herewith, the approved rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such approved rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent and (ii) if the LIBOR Daily Floating Rate shall be less than zero, such rate shall be deemed zero for purposes of this Agreement .

“Lien” means any mortgage, pledge, hypothecation, assignment, deposit arrangement, encumbrance, lien (statutory or other), charge, or preference, priority or other security interest or preferential arrangement in the nature of a security interest of any kind or nature whatsoever (including any conditional sale or other title retention agreement, any easement, right of way or other encumbrance on title to real property, and any financing lease having substantially the same economic effect as any of the foregoing).

“Loan” means an extension of credit by a Lender to the Borrower under Article II in the form of a Term Loan or a Revolving Credit Loan.

“Loan Documents” means, collectively, (a) this Agreement, (b) the Notes, (c) the Guaranty, (d) the Collateral Documents and (e) each Issuer Document.

“Loan Parties” means, collectively, the Borrower and each Guarantor.

“London Banking Day” means any day on which dealings in Dollar deposits are conducted by and between banks in the London interbank eurodollar market.

“Material Adverse Effect” shall mean any event, matter or condition which is reasonably likely to have a material adverse effect on (a) the business, assets, properties, liabilities (actual or contingent), operations or conditions (financial or otherwise) of the Borrower and its Subsidiaries taken as a whole, (b) the Borrower’s or any Guarantor’s ability to pay and perform its obligations under the Loan Documents, (c) the rights and remedies of the Administrative Agent or the Lenders under the Loan Documents, and/or (d) the Eligible Receivables or the Eligible Inventory.

“Material Contract” means the “Material Agreements” listed on the Borrower’s most recent Form 10K filed with the SEC, as supplemented by the Borrower’s Forms 10Q and 8K filed with the SEC thereafter and, with respect to any other Person, each contract to which such Person is a party involving aggregate consideration payable to or by such Person of \$4,000,000 or more in any year or otherwise if terminated by the counterparty could reasonably be expected to have a Material Adverse Effect.

“Maturity Date” means (a) with respect to the Revolving Credit Facility, May 1, 2022 and (b) with respect to the Term Loan, May 1, 2022; provided, however, that, in each case, if such date is not a Business Day, the Maturity Date shall be the next preceding Business Day.

“Measurement Period” means, at any date of determination, the most recently completed four fiscal quarters of the Borrower.

“Minimum Collateral Amount” means, at any time, (a) with respect to Cash Collateral consisting of cash or deposit account balances provided to reduce or eliminate Fronting Exposure during any period when a Lender constitutes a Defaulting Lender, an amount equal to 103% of the Fronting Exposure of the L/C Issuer with respect to Letters of Credit issued and outstanding at such time, (b) with respect to Cash Collateral consisting of cash or deposit account balances provided in accordance with the provisions of Section 2.14(a)(i), (a)(ii), (a)(iii) or (a)(iv), an amount equal to 103% of the Outstanding Amount of all L/C Obligations, and (c) otherwise, an amount determined by the Administrative Agent and the L/C Issuer in their sole discretion.

“Moody’s” means Moody’s Investors Service, Inc. and any successor thereto.

“Multiemployer Plan” means any employee benefit plan of the type described in Section 4001(a)(3) of ERISA, to which the Borrower or any ERISA Affiliate makes or is obligated to make contributions, or during the preceding five plan years, has made or been obligated to make contributions.

“Net Cash Proceeds” means:

(a) with respect to any Disposition by the Borrower or any of its Subsidiaries, or any Extraordinary Receipt received or paid to the account of the Borrower or any of its Subsidiaries, the excess, if any, of (i) the sum of cash and Cash Equivalents received in connection with such transaction (including any cash or Cash Equivalents received by way of deferred payment pursuant to, or by monetization of, a note receivable or otherwise, but only as and when so received) over (ii) the sum of (A) the principal amount of any Indebtedness that is secured by the applicable asset and that is required to be repaid in connection with such transaction (other than Indebtedness under the Loan Documents), (B) the reasonable and customary out-of-pocket expenses incurred by the Borrower or such Subsidiary in connection with such transaction and (C) income taxes reasonably estimated to be actually payable within two years of the date of the relevant transaction as a result of any gain recognized in connection therewith; provided that, if the amount of any estimated taxes pursuant to subclause (C) exceeds the amount of taxes actually required to be paid in cash in respect of such Disposition, the aggregate amount of such excess shall constitute Net Cash Proceeds; and

(b) with respect to the sale or issuance of any Equity Interest by the Borrower or any of its Subsidiaries, or the incurrence or issuance of any Indebtedness by the Borrower or any of its Subsidiaries, the excess of (i) the sum of the cash and Cash Equivalents received in connection with such transaction over (ii) the underwriting discounts and commissions, and other reasonable and customary out-of-pocket expenses, incurred by the Borrower or such Subsidiary in connection therewith.

“Net Income” for any period, shall mean net income (or loss) for such period, determined in accordance with GAAP.

“Non-Defaulting Lender” means, at any time, each Lender that is not a Defaulting Lender.

“Note” means a Term Note or a Revolving Credit Note, as the context may require.

“NPL” means the National Priorities List under CERCLA.

“Obligations” means all advances to, and debts, liabilities, obligations, covenants and duties of, any Loan Party arising under any Loan Document or otherwise with respect to any Loan, Letter of Credit, Secured Cash Management Agreement or Secured Hedge Agreement, in each case whether direct or indirect (including those acquired by assumption), absolute or contingent, due or to become due, now existing or hereafter arising and including interest and fees that accrue after the commencement by or against any Loan Party or any Affiliate thereof of any proceeding under any Debtor Relief Laws naming such Person as the debtor in such proceeding, regardless of whether such interest and fees are allowed claims in such proceeding; provided that the Obligations shall exclude any Excluded Swap Obligations.

“OFAC” means the Office of Foreign Assets Control of the United States Department of Treasury.

“Organization Documents” means, (a) with respect to any corporation, the certificate or articles of incorporation and the bylaws (or equivalent or comparable constitutive documents with respect to any non-U.S. jurisdiction); (b) with respect to any limited liability company, the certificate or articles of formation or organization and operating agreement; and (c) with respect to any partnership, joint venture, trust or other form of business entity, the partnership, joint venture or other applicable agreement of formation or organization and any agreement, instrument, filing or notice with respect thereto filed in connection with its formation or organization with the applicable Governmental Authority in the jurisdiction of its formation or organization and, if applicable, any certificate or articles of formation or organization of such entity.

“Other Connection Taxes” means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payment under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Documents).

“Other Taxes” means all present or future stamp or documentary taxes or any other excise or property taxes, charges or similar levies arising from any payment made hereunder or under any other Loan Document or from the execution, delivery or enforcement of, or otherwise with respect to, this Agreement or any other Loan Document.

“Outstanding Amount” means (a) with respect to the Term Loan and Revolving Credit Loans on any date, the aggregate outstanding principal amount thereof after giving effect to any borrowings and prepayments or repayments of the Term Loan and Revolving Credit Loans, as the case may be, occurring on such date; and (b) with respect to any L/C Obligations on any date, the amount of such L/C Obligations on such date after giving effect to any L/C Credit Extension occurring on such date and any other changes in the aggregate amount of the L/C Obligations as of such date, including as a result of any reimbursements by the Borrower of Unreimbursed Amounts.

“Participant” has the meaning specified in Section 11.06(d).

“PBGC” means the Pension Benefit Guaranty Corporation.

“Pension Plan” means any “employee pension benefit plan” (as such term is defined in Section 3(2) of ERISA), other than a Multiemployer Plan, that is subject to Title IV of ERISA and is sponsored or maintained by the Borrower or any ERISA Affiliate or to which the Borrower or any ERISA Affiliate contributes or has an obligation to contribute, or in the case of a multiple employer or other plan described in Section 4064(a) of ERISA, has made contributions at any time during the immediately preceding five plan years.

“Permitted Acquisition” shall have the meaning specified in Section 7.03(g).

“Permitted Lien” shall have the meaning specified in Section 7.01.

“Person” means any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority or other entity.

“Plan” means any “employee benefit plan” (as such term is defined in Section 3(3) of ERISA) established by the Borrower or, with respect to any such plan that is subject to Section 412 of the Code or Title IV of ERISA, any ERISA Affiliate.

“Platform” has the meaning specified in Section 6.02.

“Pledge Agreement” means, collectively, (a) that certain Stock Pledge Agreement dated as of March 29, 2013 by and between the Borrower and the Administrative Agent, and (b) that certain Stock Pledge Agreement dated as of March 29, 2013 by and between the Guarantors and the Administrative Agent, in each case as amended, modified, supplemented or restated from time to time.

“Pledged Debt” has the meaning specified in the Security Agreement.

“Pledged Equity” has the meaning specified in the Security Agreement.

“Public Lender” has the meaning specified in Section 6.02.

“Qualified ECP Guarantor” shall mean, at any time, each Loan Party with total assets exceeding \$10,000,000 or that qualifies at such time as an “eligible contract participant” under the Commodity Exchange Act and can cause another person to qualify as an “eligible contract participant” at such time under §1a(18)(A)(v)(II) of the Commodity Exchange Act.

“Receivables” means “accounts” as such term is defined in the UCC.

“Recipient” means the Administrative Agent, any Lender, the L/C Issuer or any other recipient of any payment to be made by or on account of any Obligation of any Loan Party hereunder.

“Reduction Amount” has the meaning set forth in Section 2.05(b)(vii).

“Register” has the meaning specified in Section 11.06(c).

“Related Parties” means, with respect to any Person, such Person’s Affiliates and the partners, directors, officers, employees, agents, trustees and advisors of such Person and of such Person’s Affiliates.

“Reportable Event” means any of the events set forth in Section 4043(c) of ERISA, other than events for which the 30 day notice period has been waived.

“Request for Credit Extension” means (a) with respect to a Borrowing, conversion or continuation of the Term Loan or Revolving Credit Loans, a Committed Loan Notice and (b) with respect to an L/C Credit Extension, a Letter of Credit Application.

“Required Lenders” means, as of any date of determination, if there are two Lenders (with each Lender and its Affiliate constituting one Lender), then both Lenders, and if more than two Lenders, (a) the Required Revolving Lenders; and (b) the Required Term Lenders.

“Required Revolving Lenders” means, as of any date of determination, Revolving Credit Lenders holding at least 66-<sup>2</sup>/<sub>3</sub>% of the sum of the (a) Total Revolving Credit Outstandings (with the aggregate amount of each Revolving Credit Lender’s risk participation and funded participation in L/C Obligations being deemed “held” by such Revolving Credit Lender for purposes of this definition) and (b) aggregate unused Revolving Credit Commitments; provided that the unused Revolving Credit Commitment of, and the portion of the Total Revolving Credit Outstandings held or deemed held by, any Defaulting Lender shall be excluded for purposes of making a determination of Required Revolving Lenders.

“Required Term Lenders” means, as of any date of determination, the Term Lenders holding at least 66-<sup>2</sup>/<sub>3</sub>% of the aggregate of the Term Loan outstanding on such date; provided that the portion of the Term Loan held by any Defaulting Lender shall be excluded for purposes of making a determination of Required Term Lenders.

“Responsible Officer” means the chief executive officer, president, chief financial officer, treasurer, assistant treasurer or controller of a Loan Party. Any document delivered hereunder that is signed by a Responsible Officer of a Loan Party shall be conclusively presumed to have been authorized by all necessary corporate, partnership and/or other action on the part of such Loan Party and such Responsible Officer shall be conclusively presumed to have acted on behalf of such Loan Party and, solely for purposes of notices given pursuant to Article II, any other officer or employee of the applicable Loan Party so designated by any of the foregoing officers in a notice to the Administrative Agent or any other officer or employee of the applicable Loan Party designated in or pursuant to an agreement between the applicable Loan Party and the Administrative Agent.



“Restated Obligations” is defined in the preamble hereof.

“Restricted Payment” means (i) any cash dividend or other cash distribution or payment, direct or indirect, on or on account of any shares of any class of stock of the Borrower now or hereafter outstanding or (ii) any redemption, purchase or other acquisition, direct or indirect, of any shares of any class of stock of the Borrower now or hereafter outstanding or of any warrants, options or rights to purchase any such stock (including, without limitation, the repurchase of any such stock, warrant, option or right or any refund of the purchase price thereof in connection with the exercise by the holder thereof of any right of rescission or similar remedies with respect thereto).

“Revolving Credit Borrowing” means a borrowing consisting of simultaneous Revolving Credit Loans of the same Type and, in the case of Eurodollar Rate Loans, having the same Interest Period made by each of the Revolving Credit Lenders pursuant to Section 2.01(b).

“Revolving Credit Commitment” means, as to each Revolving Credit Lender, its obligation to (a) make Revolving Credit Loans to the Borrower pursuant to Section 2.01(b)(ii) and (b) purchase participations in L/C Obligations, in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Lender’s name on Schedule 2.01 under the caption “Revolving Credit Commitment” or opposite such caption in the Assignment and Assumption pursuant to which such Lender becomes a party hereto, as applicable, as such amount may be adjusted from time to time in accordance with this Agreement. The aggregate amount of the Revolving Credit Commitments on the Third A&R Effective Date is \$25,000,000, which amount may be reduced from time to time in accordance with the terms of this Agreement.

“Revolving Credit Facility” means, at any time, the aggregate amount of the Revolving Credit Lenders’ Revolving Credit Commitments at such time.

“Revolving Credit Lender” means, at any time, any Lender that has a Revolving Credit Commitment at such time.

“Revolving Credit Loan” has the meaning specified in Section 2.01(b).

“Revolving Credit Note” means a promissory note made by the Borrower in favor of a Revolving Credit Lender evidencing Revolving Credit Loans, as the case may be, made by such Revolving Credit Lender, substantially in the form of Exhibit C.

“S&P” means Standard & Poor’s Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., and any successor thereto.

“Sanction(s)” means any sanction administered or enforced by the United States Government (including without limitation, OFAC), the United Nations Security Council, the European Union, Her Majesty’s Treasury, or other relevant sanctions authority.

“SEC” means the Securities and Exchange Commission, or any Governmental Authority succeeding to any of its principal functions.

“Secured Cash Management Agreement” means any Cash Management Agreement that is entered into by and between any Loan Party and any Cash Management Bank.

“Secured Hedge Agreement” means any interest rate Swap Contract required or permitted under Article VI or VII that is entered into by and between any Loan Party and any Hedge Bank.

“Secured Parties” means, collectively, the Administrative Agent, the Lenders, the L/C Issuer, the Hedge Banks, the Cash Management Banks, each co-agent or sub-agent appointed by the Administrative Agent from time to time pursuant to Section 9.05, and the other Persons the Obligations owing to which are or are purported to be secured by the Collateral under the terms of the Collateral Documents.

“Security Agreement” means, collectively, (a) that certain Security and Pledge Agreement dated as of March 29, 2013 by and between the Borrower and the Administrative Agent and (b) that certain Security and Pledge Agreement dated as of March 29, 2013 by and among the Guarantors and the Administrative Agent, in each case as amended, modified, supplemented or restated from time to time.

“Security Agreement Supplement” has the meaning specified in the Security Agreement.

“Solvent” and “Solvency” mean, with respect to any Person on any date of determination, that on such date (a) the fair value of the property of such Person is greater than the total amount of liabilities, including contingent liabilities, of such Person, (b) the present fair salable value of the assets of such Person is not less than the amount that will be required to pay the probable liability of such Person on its debts as they become absolute and matured, (c) such Person does not intend to, and does not believe that it will, incur debts or liabilities beyond such Person’s ability to pay such debts and liabilities as they mature, (d) such Person is not engaged in business or a transaction, and is not about to engage in business or a transaction, for which such Person’s property would constitute an unreasonably small capital, and (e) such Person is able to pay its debts and liabilities, contingent obligations and other commitments as they mature in the ordinary course of business. The amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability.

“Specified Loan Party” means any Loan Party that is not an “eligible contract participant” under the Commodity Exchange Act (determined prior to giving effect to Section 11.20(b)).

“Subsidiary” of a Person means a corporation, partnership, joint venture, limited liability company or other business entity of which a majority of the shares of securities or other interests having ordinary voting power for the election of directors or other governing body (other than securities or interests having such power only by reason of the happening of a contingency) are at the time beneficially owned, or the management of which is otherwise controlled, directly, or indirectly through one or more intermediaries, or both, by such Person. Unless otherwise specified, all references herein to a “Subsidiary” or to “Subsidiaries” shall refer to a Subsidiary or Subsidiaries of the Borrower.

“Swap Contract” means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement (any such master agreement, together with any related schedules, a “Master Agreement”), including any such obligations or liabilities under any Master Agreement.

“Swap Obligations” means with respect to any Guarantor any obligation to pay or perform under any agreement, contract or transaction that constitutes a “swap” within the meaning of Section 1a(47) of the Commodity Exchange Act.

“Swap Termination Value” means, in respect of any one or more Swap Contracts, after taking into account the effect of any legally enforceable netting agreement relating to such Swap Contracts, (a) for any date on or after the date such Swap Contracts have been closed out and termination value(s) determined in accordance therewith, such termination value(s), and (b) for any date prior to the date referenced in clause (a), the amount(s) determined as the mark-to-market value(s) for such Swap Contracts, as determined based upon one or more mid-market or other readily available quotations provided by any recognized dealer in such Swap Contracts (which may include a Lender or any Affiliate of a Lender).

“Synthetic Debt” means, with respect to any Person as of any date of determination thereof, all obligations of such Person in respect of transactions entered into by such Person that are intended to function primarily as a borrowing of funds but are not otherwise included in the definition of “Indebtedness” or as a liability on the consolidated balance sheet of such Person and its Subsidiaries in accordance with GAAP.

“Synthetic Lease Obligation” means the monetary obligation of a Person under (a) a so-called synthetic, off-balance sheet or tax retention lease, or (b) an agreement for the use or possession of property (including sale and leaseback transactions), in each case, creating obligations that do not appear on the balance sheet of such Person but which, upon the application of any Debtor Relief Laws to such Person, would be characterized as the indebtedness of such Person (without regard to accounting treatment).

“Taxes” means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“Term Borrowing” means a borrowing consisting of the Term Loan, each portion of which shall be of the same Type and, in the case of Eurodollar Rate Loans, having the same Interest Period, made by each of the Term Lenders pursuant to Section 2.01(a).

“Term Lender” means any Lender that holds a portion of the Term Loan at a given time.

“Term Loan” means each Lender’s proportionate share of the outstanding aggregate principal amount of the Restated Obligations on the Third A&R Effective Date, which, on the date hereof, is in an aggregate principal amount of \$14,000,000.

“Term Note” means an amended and restated promissory note made by the Borrower in favor of a Term Lender evidencing the portion of the Term Loan made by such Term Lender, substantially in the form of Exhibit B.

“Third A&R Effective Date” means the first date all the conditions precedent in Section 4.01 are satisfied or waived in accordance with Section 11.01.

“Threshold Amount” means \$500,000, or any lesser amount where a failure to pay or perform is reasonably likely to have a Material Adverse Effect.

“Total Funded Debt” means at any date of determination, the aggregate outstanding amount of Funded Debt.

“Total Outstandings” means the aggregate Outstanding Amount of all Loans and all L/C Obligations.

“Total Revolving Credit Outstandings” means the aggregate Outstanding Amount of all Revolving Credit Loans and L/C Obligations.

“Type” means, with respect to a Loan, its character as a LIBOR Daily Floating Rate Loan or a Eurodollar Rate Loan.

“UCC” means the Uniform Commercial Code as in effect in The Commonwealth of Massachusetts; provided that, if perfection or the effect of perfection or non-perfection or the priority of any security interest in any Collateral is governed by the Uniform Commercial Code as in effect in a jurisdiction other than The Commonwealth of Massachusetts, “UCC” means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions hereof relating to such perfection, effect of perfection or non-perfection or priority.

“Unfunded Pension Liability” means the excess of a Pension Plan’s benefit liabilities under Section 4001(a)(16) of ERISA, over the current value of that Pension Plan’s assets, determined in accordance with the assumptions used for funding the Pension Plan pursuant to Section 412 of the Code for the applicable plan year.

“ United States ” and “ U.S. ” mean the United States of America.

“ Unreimbursed Amount ” has the meaning specified in Section 2.03(c)(i).

“ Working Capital ” means an amount equal to the sum of (i) one hundred percent (100%) of the Borrower’s and its Subsidiaries’ cash and Cash Equivalents on deposit, plus (ii) eighty-five percent (85%) of the Borrower’s and its Subsidiaries’ Eligible Receivables plus (iii) the lesser of (a) an amount equal to forty percent (40%) of the Borrower’s and its Subsidiaries’ Eligible Inventory and (b) \$8,500,000. For purposes of computing Working Capital hereunder after application of the forty percent (40%) formula as set forth in clause (ii) above, the Borrower shall not include more than \$4,250,000 of Eligible Inventory maintained at any one warehouse, distribution center or other real property leased by the Borrower or any Subsidiary in the calculation thereof.

“ Write-Down and Conversion Powers ” means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

#### 1.02 Other Interpretive Provisions

With reference to this Agreement and each other Loan Document, unless otherwise specified herein or in such other Loan Document:

(a) The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words “include,” “includes” and “including” shall be deemed to be followed by the phrase “without limitation.” The word “will” shall be construed to have the same meaning and effect as the word “shall.” Unless the context requires otherwise, (i) any definition of or reference to any agreement, instrument or other document (including any Organization Document) shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or in any other Loan Document), (ii) any reference herein to any Person shall be construed to include such Person’s successors and assigns, (iii) the words “herein,” “hereof” and “hereunder,” and words of similar import when used in any Loan Document, shall be construed to refer to such Loan Document in its entirety and not to any particular provision thereof, (iv) all references in a Loan Document to Articles, Sections, Preliminary Statements, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Preliminary Statements, Exhibits and Schedules to, the Loan Document in which such references appear, (v) any reference to any law shall include all statutory and regulatory provisions consolidating, amending, replacing or interpreting such law and any reference to any law or regulation shall, unless otherwise specified, refer to such law or regulation as amended, modified or supplemented from time to time, and (vi) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights.

(b) In the computation of periods of time from a specified date to a later specified date, the word “from” means “from and including”; the words “to” and “until” each mean “to but excluding,” and the word “through” means “to and including.”

(c) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

#### 1.03 Accounting Terms

(a) Generally. All accounting terms not specifically or completely defined herein shall be construed in conformity with, and all financial data (including financial ratios and other financial calculations) required to be submitted pursuant to this Agreement shall be prepared in conformity with, GAAP applied on a consistent basis, as in effect from time to time, applied in a manner consistent with that used in preparing the Audited Financial Statements, except as otherwise specifically prescribed herein.

(b) Changes in GAAP. If at any time any change in GAAP would affect the computation of any financial ratio or requirement set forth in any Loan Document, and either the Borrower or the Required Lenders shall so request, the Administrative Agent, the Lenders and the Borrower shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in GAAP (subject to the approval of the Required Lenders); provided that, until so amended, (i) such ratio or requirement shall continue to be computed in accordance with GAAP prior to such change therein and (ii) the Borrower shall provide to the Administrative Agent and the Lenders financial statements and other documents required under this Agreement or as reasonably requested hereunder setting forth a reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in GAAP.

#### 1.04 Rounding

Any financial ratios required to be maintained by the Borrower pursuant to this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

#### 1.05 Times of Day

Unless otherwise specified, all references herein to times of day shall be references to Eastern time (daylight or standard, as applicable).

1.06 Letter of Credit Amounts

Unless otherwise specified herein, the amount of a Letter of Credit at any time shall be deemed to be the stated amount of such Letter of Credit in effect at such time; provided, however, that with respect to any Letter of Credit that, by its terms or the terms of any Issuer Document related thereto, provides for one or more automatic increases in the stated amount thereof, the amount of such Letter of Credit shall be deemed to be the maximum stated amount of such Letter of Credit after giving effect to all such increases, whether or not such maximum stated amount is in effect at such time.

1.07 Currency Equivalents Generally

Any amount specified in this Agreement (other than in Articles II, IX and X) or any of the other Loan Documents to be in Dollars shall also include the equivalent of such amount in any currency other than Dollars, such equivalent amount thereof in the applicable currency to be determined by the Administrative Agent at such time on the basis of the Spot Rate (as defined below) for the purchase of such currency with Dollars. For purposes of this Section 1.07, the “Spot Rate” for a currency means the rate determined by the Administrative Agent to be the rate quoted by the Person acting in such capacity as the spot rate for the purchase by such Person of such currency with another currency through its principal foreign exchange trading office at approximately 11:00 a.m. on the date two Business Days prior to the date of such determination; provided that the Administrative Agent may obtain such spot rate from another financial institution designated by the Administrative Agent if the Person acting in such capacity does not have as of the date of determination a spot buying rate for any such currency.

ARTICLE II  
THE COMMITMENTS AND CREDIT EXTENSIONS

2.01 The Loans

(a) The Term Borrowing. Subject to the terms and conditions set forth herein, each Term Lender severally agrees to consolidate, combine and restate the Restated Obligations in a single loan on the Third A&R Effective Date in an aggregate principal amount not to exceed \$14,000,000. The Borrower and each Lender hereby acknowledge, confirm and agree that such consolidation, combination and restatement shall be effected by a cashless settlement. Any portion of the Term Loan which is repaid or prepaid may not be reborrowed. The Term Loan may be a LIBOR Daily Floating Rate Loan or a Eurodollar Rate Loan, as further provided herein.

(b) The Revolving Credit Borrowings. Subject to the terms and conditions set forth herein, each Revolving Credit Lender severally agrees to make loans (each such loan, a “Revolving Credit Loan”) to the Borrower from time to time, on any Business Day during the Availability Period for the Revolving Credit Facility, in an aggregate amount not to exceed at any time outstanding the amount of such Lender’s Revolving Credit Commitment; provided that, after giving effect to any Revolving Credit Borrowing, (i) the Total Revolving Credit Outstandings, shall not exceed the Revolving Credit Facility and (ii) the aggregate Outstanding Amount of the Revolving Credit Loans of any Lender, plus such Revolving Credit Lender’s Applicable Revolving Credit Percentage of the Outstanding Amount of all L/C Obligations, shall not exceed such Revolving Credit Lender’s Revolving Credit Commitment. Within the limits of each Revolving Credit Lender’s Revolving Credit Commitment, and subject to the other terms and conditions hereof, including, without limitation, any voluntary or automatic reduction thereof, as provided under Section 2.06, the Borrower may borrow under this Section 2.01(b), prepay under Section 2.05, and reborrow under this Section 2.01(b). Revolving Credit Loans may be LIBOR Daily Floating Rate Loans or Eurodollar Rate Loans, as further provided herein.

2.02 Borrowings, Conversions and Continuations of Loans

(a) Each Term Borrowing, each Revolving Credit Borrowing, each conversion of the Term Loan or Revolving Credit Loans from one Type to the other, and each continuation of Eurodollar Rate Loans shall be made upon the Borrower's irrevocable notice to the Administrative Agent, which may be given by (A) telephone, or (B) a Committed Loan Notice; provided that any telephone notice must be confirmed immediately by delivery to the Administrative Agent of a Committed Loan Notice. Each such Committed Loan Notice must be received by the Administrative Agent not later than 11:00 a.m. (i) three Business Days prior to the requested date of any Borrowing of, conversion to or continuation of Eurodollar Rate Loans or of any conversion of Eurodollar Rate Loans to LIBOR Daily Floating Rate Loans, and (ii) on the requested date of any Borrowing of LIBOR Daily Floating Rate Loans; provided, however, that if the Borrower wishes to request Eurodollar Rate Loans having an Interest Period other than one, two, three or six months in duration as provided in the definition of "Interest Period," the applicable notice must be received by the Administrative Agent not later than 11:00 a.m. four Business Days prior to the requested date of such Borrowing, conversion or continuation, whereupon the Administrative Agent shall give prompt notice to the Appropriate Lenders of such request and determine whether the requested Interest Period is acceptable to all of them. Not later than 11:00 a.m., three Business Days before the requested date of such Borrowing, conversion or continuation, the Administrative Agent shall notify the Borrower (which notice may be by telephone) whether or not the requested Interest Period has been consented to by all the Lenders. Each Borrowing of, conversion to or continuation of Eurodollar Rate Loans shall be in a principal amount of \$1,000,000 or a whole multiple of \$100,000 in excess thereof. Except as provided in Sections 2.03(c), each Borrowing of or conversion to LIBOR Daily Floating Rate Loans shall be in a principal amount of \$500,000 or a whole multiple of \$100,000 in excess thereof. Each Committed Loan Notice shall specify (i) whether the Borrower is requesting a Term Borrowing, a Revolving Credit Borrowing, a conversion of the Term Loan or Revolving Credit Loans from one Type to the other, or a continuation of Eurodollar Rate Loans, (ii) the requested date of the Borrowing, conversion or continuation, as the case may be (which shall be a Business Day), (iii) the principal amount of Loans to be borrowed, converted or continued, (iv) the Type of Loans to be borrowed or to which the existing Term Loan or Revolving Credit Loans are to be converted, and (v) if applicable, the duration of the Interest Period with respect thereto. If the Borrower fails to specify a Type of Loan in a Committed Loan Notice or if the Borrower fails to give a timely notice requesting a conversion or continuation, then the applicable Term Loan or Revolving Credit Loans shall be made as, or converted to, LIBOR Daily Floating Rate Loans. Any such automatic conversion to LIBOR Daily Floating Rate Loans shall be effective as of the last day of the Interest Period then in effect with respect to the applicable Eurodollar Rate Loans. If the Borrower requests a Borrowing of, conversion to, or continuation of Eurodollar Rate Loans in any such Committed Loan Notice, but fails to specify an Interest Period, it will be deemed to have specified an Interest Period of one month.



(b) Following receipt of a Committed Loan Notice, the Administrative Agent shall promptly notify each Lender of the amount of its Applicable Percentage under the applicable Facility of the applicable Term Loan or Revolving Credit Loans, and if no timely notice of a conversion or continuation is provided by the Borrower, the Administrative Agent shall notify each Lender of the details of any automatic conversion to LIBOR Daily Floating Rate Loans described in Section 2.02(a). In the case of a Term Borrowing or a Revolving Credit Borrowing, each Appropriate Lender shall make the amount of its Loan available to the Administrative Agent in immediately available funds at the Administrative Agent's Office not later than 1:00 p.m. on the Business Day specified in the applicable Committed Loan Notice. Upon satisfaction of the applicable conditions set forth in Section 4.02 (and, if such Borrowing is the initial Credit Extension, Section 4.01), the Administrative Agent shall make all funds so received available to the Borrower in like funds as received by the Administrative Agent either by (i) crediting the account of the Borrower on the books of Bank of America with the amount of such funds or (ii) wire transfer of such funds, in each case in accordance with instructions provided to (and reasonably acceptable to) the Administrative Agent by the Borrower; provided, however, that if, on the date a Committed Loan Notice with respect to a Revolving Credit Borrowing is given by the Borrower, there are L/C Borrowings outstanding, then the proceeds of such Revolving Credit Borrowing, first, shall be applied to the payment in full of any such L/C Borrowings, and second, shall be made available to the Borrower as provided above.

(c) Except as otherwise provided herein, a Eurodollar Rate Loan may be continued or converted only on the last day of an Interest Period for such Eurodollar Rate Loan. During the existence of a Default, no Loans may be requested as, converted to or continued as Eurodollar Rate Loans without the consent of the Required Lenders.

(d) The Administrative Agent shall promptly notify the Borrower and the Lenders of the interest rate applicable to any Interest Period for Eurodollar Rate Loans upon determination of such interest rate. At any time that LIBOR Daily Floating Rate Loans are outstanding, the Administrative Agent shall notify the Borrower and the Lenders of any change in Bank of America's prime rate used in determining the LIBOR Daily Floating Rate promptly following the public announcement of such change.

(e) After giving effect to all Borrowings, all conversions of Loans from one Type to the other, and all continuations of Loans as the same Type, there shall not be more than five Interest Periods in effect in respect of the Term Loan, and the Revolving Credit Facility.

2.03 Letters of Credit

(a) The Letter of Credit Commitment.

(i) Subject to the terms and conditions set forth herein, (A) the L/C Issuer agrees, in reliance upon the agreements of the Revolving Credit Lenders set forth in this Section 2.03, (1) from time to time on any Business Day during the period from the Third A&R Effective Date until the Letter of Credit Expiration Date, to issue Letters of Credit for the account of the Borrower, and to amend Letters of Credit previously issued by it, in accordance with Section 2.03(b), and (2) to honor drawings under the Letters of Credit; and (B) the Revolving Credit Lenders severally agree to participate in Letters of Credit issued for the account of the Borrower and any drawings thereunder; provided that after giving effect to any L/C Credit Extension with respect to any Letter of Credit, (x) the Total Revolving Credit Outstandings, shall not exceed the Revolving Credit Facility, (y) the aggregate Outstanding Amount of the Revolving Credit Loans of any Revolving Credit Lender, plus such Lender's Applicable Revolving Credit Percentage of the Outstanding Amount of all L/C Obligations shall not exceed such Lender's Revolving Credit Commitment, and (z) the Outstanding Amount of the L/C Obligations shall not exceed the Letter of Credit Sublimit. Each request by the Borrower for the issuance or amendment of a Letter of Credit shall be deemed to be a representation by the Borrower that the L/C Credit Extension so requested complies with the conditions set forth in the proviso to the preceding sentence. Within the foregoing limits, and subject to the terms and conditions hereof, the Borrower's ability to obtain Letters of Credit shall be fully revolving, and accordingly the Borrower may, during the foregoing period, obtain Letters of Credit to replace Letters of Credit that have expired or that have been drawn upon and reimbursed.

(ii) The L/C Issuer shall not issue any Letter of Credit if:

(A) the expiry date of such requested Letter of Credit would occur more than twelve months after the date of issuance, unless the Required Revolving Lenders have approved such expiry date; or

(B) the expiry date of such requested Letter of Credit would occur after the Letter of Credit Expiration Date, unless all the Revolving Credit Lenders have approved such expiry date.

(iii) The L/C Issuer shall not be under any obligation to issue any Letter of Credit if:

(A) any order, judgment or decree of any Governmental Authority or arbitrator shall by its terms purport to enjoin or restrain the L/C Issuer from issuing such Letter of Credit, or any Law applicable to the L/C Issuer or any request or directive (whether or not having the force of law) from any Governmental Authority with jurisdiction over the L/C Issuer shall prohibit, or request that the L/C Issuer refrain from, the issuance of letters of credit generally or such Letter of Credit in particular or shall impose upon the L/C Issuer with respect to such Letter of Credit any restriction, reserve or capital requirement (for which the L/C Issuer is not otherwise compensated hereunder) not in effect on the Third A&R Effective Date, or shall impose upon the L/C Issuer any unreimbursed loss, cost or expense which was not applicable on the Third A&R Effective Date and which the L/C Issuer in good faith deems material to it;

- (B) the issuance of such Letter of Credit would violate one or more policies of the L/C Issuer applicable to letters of credit generally;
- (C) except as otherwise agreed by the Administrative Agent and the L/C Issuer, such Letter of Credit is in an initial stated amount less than \$100,000, in the case of a commercial Letter of Credit, or \$500,000, in the case of a standby Letter of Credit;
- (D) such Letter of Credit is to be denominated in a currency other than Dollars; or
- (E) a default of any Lender's obligations to fund under Section 2.03(c) exists or any Lender is at such time a Defaulting Lender hereunder, unless the L/C Issuer has entered into satisfactory arrangements with the Borrower or such Lender to eliminate the L/C Issuer's risk with respect to such Lender.

(iv) The L/C Issuer shall not amend any Letter of Credit if the L/C Issuer would not be permitted at such time to issue such Letter of Credit in its amended form under the terms hereof.

(v) The L/C Issuer shall be under no obligation to amend any Letter of Credit if (A) the L/C Issuer would have no obligation at such time to issue such Letter of Credit in its amended form under the terms hereof, or (B) the beneficiary of such Letter of Credit does not accept the proposed amendment to such Letter of Credit.

(vi) The L/C Issuer shall act on behalf of the Revolving Credit Lenders with respect to any Letters of Credit issued by it and the documents associated therewith, and the L/C Issuer shall have all of the benefits and immunities (A) provided to the Administrative Agent in Article IX with respect to any acts taken or omissions suffered by the L/C Issuer in connection with Letters of Credit issued by it or proposed to be issued by it and Issuer Documents pertaining to such Letters of Credit as fully as if the term "Administrative Agent" as used in Article IX included the L/C Issuer with respect to such acts or omissions, and (B) as additionally provided herein with respect to the L/C Issuer.

(b) Procedures for Issuance and Amendment of Letters of Credit.

(i) Each Letter of Credit shall be issued or amended, as the case may be, upon the request of the Borrower delivered to the L/C Issuer (with a copy to the Administrative Agent) in the form of a Letter of Credit Application, appropriately completed and signed by a Responsible Officer of the Borrower. Such Letter of Credit Application must be received by the L/C Issuer and the Administrative Agent not later than 11:00 a.m. at least two Business Days (or such later date and time as the Administrative Agent and the L/C Issuer may agree in a particular instance in their sole discretion) prior to the proposed issuance date or date of amendment, as the case may be. In the case of a request for an initial issuance of a Letter of Credit, such Letter of Credit Application shall specify in form and detail satisfactory to the L/C Issuer: (A) the proposed issuance date of the requested Letter of Credit (which shall be a Business Day); (B) the amount thereof; (C) the expiry date thereof; (D) the name and address of the beneficiary thereof; (E) the documents to be presented by such beneficiary in case of any drawing thereunder; (F) the full text of any certificate to be presented by such beneficiary in case of any drawing thereunder; (G) the purpose and nature of the requested Letter of Credit; and (H) such other matters as the L/C Issuer may require. In the case of a request for an amendment of any outstanding Letter of Credit, such Letter of Credit Application shall specify in form and detail satisfactory to the L/C Issuer (1) the Letter of Credit to be amended; (2) the proposed date of amendment thereof (which shall be a Business Day); (3) the nature of the proposed amendment; and (4) such other matters as the L/C Issuer may require. Additionally, the Borrower shall furnish to the L/C Issuer and the Administrative Agent such other documents and information pertaining to such requested Letter of Credit issuance or amendment, including any Issuer Documents, as the L/C Issuer or the Administrative Agent may require.

(ii) Promptly after receipt of any Letter of Credit Application, the L/C Issuer will confirm with the Administrative Agent (by telephone or in writing) that the Administrative Agent has received a copy of such Letter of Credit Application from the Borrower and, if not, the L/C Issuer will provide the Administrative Agent with a copy thereof. Unless the L/C Issuer has received written notice from any Revolving Credit Lender, the Administrative Agent or any Loan Party, at least one Business Day prior to the requested date of issuance or amendment of the applicable Letter of Credit, that one or more applicable conditions contained in Article IV shall not then be satisfied, then, subject to the terms and conditions hereof, the L/C Issuer shall, on the requested date, issue a Letter of Credit for the account of the Borrower or enter into the applicable amendment, as the case may be, in each case in accordance with the L/C Issuer's usual and customary business practices. Immediately upon the issuance of each Letter of Credit, each Revolving Credit Lender shall be deemed to, and hereby irrevocably and unconditionally agrees to, purchase from the L/C Issuer a risk participation in such Letter of Credit in an amount equal to the product of such Revolving Credit Lender's Applicable Revolving Credit Percentage times the amount of such Letter of Credit.

(iii) Promptly after its delivery of any Letter of Credit or any amendment to a Letter of Credit to an advising bank with respect thereto or to the beneficiary thereof, the L/C Issuer will also deliver to the Borrower and the Administrative Agent a true and complete copy of such Letter of Credit or amendment.

(c) Drawings and Reimbursements; Funding of Participations. (i) Upon receipt from the beneficiary of any Letter of Credit of any notice of a drawing under such Letter of Credit, the L/C Issuer shall notify the Borrower and the Administrative Agent thereof. Not later than 11:00 a.m. on the date of any payment by the L/C Issuer under a Letter of Credit (each such date, an “Honor Date”), the Borrower shall reimburse the L/C Issuer through the Administrative Agent in an amount equal to the amount of such drawing. If the Borrower fails to so reimburse the L/C Issuer by such time, the Administrative Agent shall promptly notify each Revolving Credit Lender of the Honor Date, the amount of the unreimbursed drawing (the “Unreimbursed Amount”), and the amount of such Revolving Credit Lender’s Applicable Revolving Credit Percentage thereof. In such event, the Borrower shall be deemed to have requested a Revolving Credit Borrowing of LIBOR Daily Floating Rate Loans to be disbursed on the Honor Date in an amount equal to the Unreimbursed Amount, without regard to the minimum and multiples specified in Section 2.02 for the principal amount of LIBOR Daily Floating Rate Loans, but subject to the amount of the unutilized portion of the Revolving Credit Commitments and the conditions set forth in Section 4.02 (other than the delivery of a Committed Loan Notice). Any notice given by the L/C Issuer or the Administrative Agent pursuant to this Section 2.03(c)(i) may be given by telephone if immediately confirmed in writing; provided that the lack of such an immediate confirmation shall not affect the conclusiveness or binding effect of such notice.

(ii) Each Revolving Credit Lender shall upon any notice pursuant to Section 2.03(c)(i) make funds available to the Administrative Agent for the account of the L/C Issuer at the Administrative Agent’s Office in an amount equal to its Applicable Revolving Credit Percentage of the Unreimbursed Amount not later than 1:00 p.m. on the Business Day specified in such notice by the Administrative Agent, whereupon, subject to the provisions of Section 2.03(c)(iii), each Revolving Credit Lender that so makes funds available shall be deemed to have made a LIBOR Daily Floating Rate Loan to the Borrower in such amount. The Administrative Agent shall remit the funds so received to the L/C Issuer.

(iii) With respect to any Unreimbursed Amount that is not fully refinanced by a Revolving Credit Borrowing of LIBOR Daily Floating Rate Loans because the conditions set forth in Section 4.02 cannot be satisfied or for any other reason, the Borrower shall be deemed to have incurred from the L/C Issuer an L/C Borrowing in the amount of the Unreimbursed Amount that is not so refinanced, which L/C Borrowing shall be due and payable on demand (together with interest) and shall bear interest at the Default Rate. In such event, each Revolving Credit Lender’s payment to the Administrative Agent for the account of the L/C Issuer pursuant to Section 2.03(c)(ii) shall be deemed payment in respect of its participation in such L/C Borrowing and shall constitute an L/C Advance from such Lender in satisfaction of its participation obligation under this Section 2.03.

(iv) Until each Revolving Credit Lender funds its Revolving Credit Loan or L/C Advance pursuant to this Section 2.03(c) to reimburse the L/C Issuer for any amount drawn under any Letter of Credit, interest in respect of such Lender’s Applicable Revolving Credit Percentage of such amount shall be solely for the account of the L/C Issuer.

(v) Each Revolving Credit Lender's obligation to make Revolving Credit Loans or L/C Advances to reimburse the L/C Issuer for amounts drawn under Letters of Credit, as contemplated by this Section 2.03(c), shall be absolute and unconditional and shall not be affected by any circumstance, including (A) any setoff, counterclaim, recoupment, defense or other right which such Lender may have against the L/C Issuer, the Borrower or any other Person for any reason whatsoever; (B) the occurrence or continuance of a Default, or (C) any other occurrence, event or condition, whether or not similar to any of the foregoing; provided, however, that each Revolving Credit Lender's obligation to make Revolving Credit Loans pursuant to this Section 2.03(c) is subject to the conditions set forth in Section 4.02 (other than delivery by the Borrower of a Committed Loan Notice ). No such making of an L/C Advance shall relieve or otherwise impair the obligation of the Borrower to reimburse the L/C Issuer for the amount of any payment made by the L/C Issuer under any Letter of Credit, together with interest as provided herein.

(vi) If any Revolving Credit Lender fails to make available to the Administrative Agent for the account of the L/C Issuer any amount required to be paid by such Lender pursuant to the foregoing provisions of this Section 2.03(c) by the time specified in Section 2.03(c)(ii), the L/C Issuer shall be entitled to recover from such Lender (acting through the Administrative Agent), on demand, such amount with interest thereon for the period from the date such payment is required to the date on which such payment is immediately available to the L/C Issuer at a rate per annum equal to the greater of the Federal Funds Rate and a rate determined by the L/C Issuer in accordance with banking industry rules on interbank compensation, plus any administrative, processing or similar fees customarily charged by the L/C Issuer in connection with the foregoing. If such Lender pays such amount (with interest and fees as aforesaid), the amount so paid shall constitute such Lender's Committed Loan included in the relevant Committed Borrowing or L/C Advance in respect of the relevant L/C Borrowing, as the case may be. A certificate of the L/C Issuer submitted to any Revolving Credit Lender (through the Administrative Agent) with respect to any amounts owing under this Section 2.03(c)(vi) shall be conclusive absent manifest error.

(d) Repayment of Participations. (i) At any time after the L/C Issuer has made a payment under any Letter of Credit and has received from any Revolving Credit Lender such Lender's L/C Advance in respect of such payment in accordance with Section 2.03(c), if the Administrative Agent receives for the account of the L/C Issuer any payment in respect of the related Unreimbursed Amount or interest thereon (whether directly from the Borrower or otherwise, including proceeds of Cash Collateral applied thereto by the Administrative Agent), the Administrative Agent will distribute to such Lender its Applicable Revolving Credit Percentage thereof in the same funds as those received by the Administrative Agent.

(ii) If any payment received by the Administrative Agent for the account of the L/C Issuer pursuant to Section 2.03(c)(i) is required to be returned under any of the circumstances described in Section 11.05 (including pursuant to any settlement entered into by the L/C Issuer in its discretion), each Revolving Credit Lender shall pay to the Administrative Agent for the account of the L/C Issuer its Applicable Revolving Credit Percentage thereof on demand of the Administrative Agent, plus interest thereon from the date of such demand to the date such amount is returned by such Lender, at a rate per annum equal to the Federal Funds Rate from time to time in effect. The obligations of the Lenders under this clause shall survive the payment in full of the Obligations and the termination of this Agreement.

(e) Obligations Absolute. The obligation of the Borrower to reimburse the L/C Issuer for each drawing under each Letter of Credit and to repay each L/C Borrowing shall be absolute, unconditional and irrevocable, and shall be paid strictly in accordance with the terms of this Agreement under all circumstances, including the following:

(i) any lack of validity or enforceability of such Letter of Credit, this Agreement, or any other Loan Document;

(ii) the existence of any claim, counterclaim, setoff, defense or other right that the Borrower or any Subsidiary may have at any time against any beneficiary or any transferee of such Letter of Credit (or any Person for whom any such beneficiary or any such transferee may be acting), the L/C Issuer or any other Person, whether in connection with this Agreement, the transactions contemplated hereby or by such Letter of Credit or any agreement or instrument relating thereto, or any unrelated transaction;

(iii) any draft, demand, certificate or other document presented under such Letter of Credit proving to be forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue or inaccurate in any respect; or any loss or delay in the transmission or otherwise of any document required in order to make a drawing under such Letter of Credit;

(iv) any payment by the L/C Issuer under such Letter of Credit against presentation of a draft or certificate that does not strictly comply with the terms of such Letter of Credit; or any payment made by the L/C Issuer under such Letter of Credit to any Person purporting to be a trustee in bankruptcy, debtor-in-possession, assignee for the benefit of creditors, liquidator, receiver or other representative of or successor to any beneficiary or any transferee of such Letter of Credit, including any arising in connection with any proceeding under any Debtor Relief Law; or

(v) any other circumstance or happening whatsoever, whether or not similar to any of the foregoing, including any other circumstance that might otherwise constitute a defense available to, or a discharge of, the Borrower or any of its Subsidiaries.

The Borrower shall promptly examine a copy of each Letter of Credit and each amendment thereto that is delivered to it and, in the event of any claim of noncompliance with the Borrower's instructions or other irregularity, the Borrower will immediately notify the L/C Issuer. The Borrower shall be conclusively deemed to have waived any such claim against the L/C Issuer and its correspondents unless such notice is given as aforesaid.

(f) Role of L/C Issuer. Each Lender and the Borrower agree that, in paying any drawing under a Letter of Credit, the L/C Issuer shall not have any responsibility to obtain any document (other than any sight draft, certificates and documents expressly required by the Letter of Credit) or to ascertain or inquire as to the validity or accuracy of any such document or the authority of the Person executing or delivering any such document. None of the L/C Issuer, the Administrative Agent, any of their respective Related Parties nor any correspondent, participant or assignee of the L/C Issuer shall be liable to any Lender for (i) any action taken or omitted in connection herewith at the request or with the approval of the Revolving Credit Lenders or the Required Revolving Lenders, as applicable; (ii) any action taken or omitted in the absence of gross negligence or willful misconduct; or (iii) the due execution, effectiveness, validity or enforceability of any document or instrument related to any Letter of Credit or Issuer Document. The Borrower hereby assumes all risks of the acts or omissions of any beneficiary or transferee with respect to its use of any Letter of Credit; provided, however, that this assumption is not intended to, and shall not, preclude the Borrower's pursuing such rights and remedies as it may have against the beneficiary or transferee at law or under any other agreement. None of the L/C Issuer, the Administrative Agent, any of their respective Related Parties nor any correspondent, participant or assignee of the L/C Issuer shall be liable or responsible for any of the matters described in clauses (i) through (v) of Section 2.03(e); provided, however, that anything in such clauses to the contrary notwithstanding, the Borrower may have a claim against the L/C Issuer, and the L/C Issuer may be liable to the Borrower, to the extent, but only to the extent, of any direct, as opposed to consequential or exemplary, damages suffered by the Borrower which the Borrower proves were caused by the L/C Issuer's willful misconduct or gross negligence or the L/C Issuer's willful failure to pay under any Letter of Credit after the presentation to it by the beneficiary of a sight draft and certificate(s) strictly complying with the terms and conditions of a Letter of Credit. In furtherance and not in limitation of the foregoing, the L/C Issuer may accept documents that appear on their face to be in order, without responsibility for further investigation, regardless of any notice or information to the contrary, and the L/C Issuer shall not be responsible for the validity or sufficiency of any instrument transferring or assigning or purporting to transfer or assign a Letter of Credit or the rights or benefits thereunder or proceeds thereof, in whole or in part, which may prove to be invalid or ineffective for any reason.



(g) Cash Collateral. Upon the request of the Administrative Agent, (i) if the L/C Issuer has honored any full or partial drawing request under any Letter of Credit and such drawing has resulted in an L/C Borrowing shall within three (3) Business Days, or (ii) if, as of the Letter of Credit Expiration Date, any L/C Obligation for any reason remains outstanding, the Borrower shall, immediately, Cash Collateralize the then Outstanding Amount of all L/C Obligations. Sections 2.05 and 8.02(c) set forth certain additional requirements to deliver Cash Collateral hereunder. For purposes of this Section 2.03, Section 2.05 and Section 8.02(c), “Cash Collateralize” means to pledge and deposit with or deliver to the Administrative Agent, for the benefit of the L/C Issuer and the Lenders, as collateral for the L/C Obligations, cash or deposit account balances pursuant to documentation in form and substance satisfactory to the Administrative Agent and the L/C Issuer (which documents are hereby consented to by the Lenders) in the Minimum Collateral Amount. Derivatives of such term have corresponding meanings. The Borrower hereby grants to the Administrative Agent, for the benefit of the L/C Issuer and the Lenders, a security interest in all such cash, deposit accounts and all balances therein and all proceeds of the foregoing. Cash Collateral shall be maintained in blocked, non-interest bearing deposit accounts at Bank of America. If at any time the Administrative Agent determines that any funds held as Cash Collateral are subject to any right or claim of any Person other than the Administrative Agent or that the total amount of such funds is less than the aggregate Outstanding Amount of all L/C Obligations, the Borrower will, forthwith upon demand by the Administrative Agent, pay to the Administrative Agent, as additional funds to be deposited as Cash Collateral, an amount equal to the excess of (x) such aggregate Outstanding Amount over (y) the total amount of funds, if any, then held as Cash Collateral that the Administrative Agent determines to be free and clear of any such right and claim. Upon the drawing of any Letter of Credit for which funds are on deposit as Cash Collateral, such funds shall be applied, to the extent permitted under applicable Laws, to reimburse the L/C Issuer.

(h) Applicability of ISP and UCP. Unless otherwise expressly agreed by the L/C Issuer and the Borrower when a Letter of Credit is issued, (i) the rules of the ISP shall apply to each standby Letter of Credit, and (ii) the rules of the Uniform Customs and Practice for Documentary Credits, as most recently published by the International Chamber of Commerce at the time of issuance shall apply to each commercial Letter of Credit.

(i) Letter of Credit Fees. The Borrower shall pay to the Administrative Agent for the account of each Revolving Credit Lender in accordance with its Applicable Revolving Credit Percentage a Letter of Credit fee (the “Letter of Credit Fee”) for each Letter of Credit equal to 2.50% per annum times the daily amount available to be drawn under such Letter of Credit. For purposes of computing the daily amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.06. Letter of Credit Fees shall be (i) due and payable on the first Business Day after the end of each March, June, September and December, commencing with the first such date to occur after the issuance of such Letter of Credit, on the Letter of Credit Expiration Date and thereafter on demand and (ii) computed on a quarterly basis in arrears. Notwithstanding anything to the contrary contained herein, upon the request of the Required Revolving Lenders, while any Event of Default exists, all Letter of Credit Fees shall accrue at the Default Rate.

(j) Fronting Fee and Documentary and Processing Charges Payable to L/C Issuer. The Borrower shall pay directly to the L/C Issuer for its own account a fronting fee with respect to each Letter of Credit, at one-eighth of one percent (0.125%) per annum, computed on the daily amount available to be drawn under such Letter of Credit on a quarterly basis in arrears. Such fronting fee shall be due and payable on the tenth Business Day after the end of each March, June, September and December in respect of the most recently-ended quarterly period (or portion thereof, in the case of the first payment), commencing with the first such date to occur after the issuance of such Letter of Credit, on the Letter of Credit Expiration Date and thereafter on demand. For purposes of computing the daily amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.06. In addition, the Borrower shall pay directly to the L/C Issuer for its own account the customary issuance, presentation, amendment and other processing fees, and other standard costs and charges, of the L/C Issuer relating to letters of credit as from time to time in effect. Such customary fees and standard costs and charges are due and payable on demand and are nonrefundable.

(k) Conflict with Issuer Documents. In the event of any conflict between the terms hereof and the terms of any Issuer Document, the terms hereof shall control.

2.04 Reserved

2.05 Prepayments

(a) Optional. Subject to the last sentence of this Section 2.05(a)(i), the Borrower may, upon delivery of a notice to the Administrative Agent, at any time or from time to time voluntarily prepay the Term Loan and Revolving Credit Loans in whole or in part without premium or penalty; provided that (A) such notice must be received by the Administrative Agent not later than 11:00 a.m. (1) three Business Days prior to any date of prepayment of Eurodollar Rate Loans and (2) on the date of prepayment of LIBOR Daily Floating Rate Loans; (B) any prepayment of Eurodollar Rate Loans shall be in a principal amount of \$500,000 or a whole multiple of \$100,000 in excess thereof; and (C) any prepayment of LIBOR Daily Floating Rate Loans shall be in a principal amount of \$500,000 or a whole multiple of \$100,000 in excess thereof or, in each case, if less, the entire principal amount thereof then outstanding. Each such notice shall specify the date and amount of such prepayment and the Type(s) of Loans to be prepaid and, if Eurodollar Rate Loans are to be prepaid, the Interest Period(s) of such Loans. The Administrative Agent will promptly notify each Lender of its receipt of each such notice, and of the amount of such Lender's ratable portion of such prepayment (based on such Lender's Applicable Percentage in respect of the relevant Facility). If such notice is given by the Borrower, the Borrower shall make such prepayment and the payment amount specified in such notice shall be due and payable on the date specified therein. Any prepayment of a Eurodollar Rate Loan shall be accompanied by all accrued interest on the amount prepaid, together with any additional amounts required pursuant to Section 3.05. Each prepayment of the outstanding Term Loan pursuant to this Section 2.05(a) shall be applied to the principal repayment installments of the Term Loan in inverse order of maturity, and each such prepayment shall be paid to the Lenders in accordance with their respective Applicable Percentages in respect of each of the relevant Facilities.

(b) Mandatory. (i) If the Borrower or any of its Subsidiaries Disposes of any property (other than any Disposition of any property permitted by Section 7.05(a), or (b)) which results in the realization by such Person of Net Cash Proceeds, the Borrower shall prepay an aggregate principal amount of Loans equal to 100% of such Net Cash Proceeds within five (5) Business Days upon receipt thereof by such Person (such prepayments to be applied as set forth in clauses (vi) and (ix) below); provided, however, that, with respect to any Net Cash Proceeds realized under a Disposition described in this Section 2.05(b)(i), such Net Cash Proceeds will be deposited in an account of a Loan Party with the Administrative Agent and, at the election of the Borrower (as notified by the Borrower to the Administrative Agent on or prior to the date of such Disposition), and so long as no Default or Event of Default shall have occurred and be continuing, the Borrower or such Subsidiary may reinvest all or any portion of such Net Cash Proceeds in operating assets so long as within 180 days after the receipt of such Net Cash Proceeds, such purchase shall have been consummated (as certified by the Borrower in writing to the Administrative Agent); and provided further, however, that any Net Cash Proceeds not subject to such definitive agreement or so reinvested shall be immediately applied to the prepayment of the Loans as set forth in this Section 2.05(b)(i).

(ii) Upon the sale or issuance by the Borrower or any of its Subsidiaries of any of its Equity Interests (other than the issuance of common stock upon the exercise of stock options held by employees and directors of the Borrower), the Borrower shall prepay an aggregate principal amount of Loans equal to 100% of all Net Cash Proceeds received therefrom immediately upon receipt thereof by the Borrower or such Subsidiary (such prepayments to be applied as set forth in clauses (vi) and (ix) below).

(iii) Upon the incurrence or issuance by the Borrower or any of its Subsidiaries of any Indebtedness (other than Indebtedness expressly permitted to be incurred or issued pursuant to Section 7.02), the Borrower shall prepay an aggregate principal amount of Loans equal to 100% of all Net Cash Proceeds received therefrom immediately upon receipt thereof by the Borrower or such Subsidiary (such prepayments to be applied as set forth in clauses (vi) and (ix) below).

(iv) Upon any Extraordinary Receipt above an aggregate amount of \$1,500,000 during any fiscal year, received by or paid to or for the account of the Borrower or any of its Subsidiaries, and not otherwise included in clause (ii), (iii) or (iv) of this Section 2.05(b), the Borrower shall prepay an aggregate principal amount of Loans equal to 100% of all Net Cash Proceeds received therefrom within five (5) Business Days upon receipt thereof by the Borrower or such Subsidiary (such prepayments to be applied as set forth in clauses (vi) and (ix) below); provided, however, that with respect to any proceeds of insurance, condemnation awards (or payments in lieu thereof) or indemnity payments, at the election of the Borrower (as notified by the Borrower to the Administrative Agent on or prior to the date of receipt of such insurance proceeds, condemnation awards or indemnity payments), and so long as no Default or Event of Default shall have occurred and be continuing, the Borrower or such Subsidiary may apply within 180 days after the receipt of such cash proceeds to replace or repair the equipment, fixed assets or real property in respect of which such cash proceeds were received; and provided, further, however, that any cash proceeds not so applied shall be immediately applied to the prepayment of the Loans as set forth in this Section 2.05(b)(v).

(v) Each prepayment of Loans pursuant to the foregoing provisions of this Section 2.05(b) shall be applied, first, to the Term Loan and to the principal repayment installments thereof in inverse order of maturity and, second, to the Revolving Credit Facility in the manner set forth in clause (ix) of this Section 2.05(b).

(vi) If as of the last day of any fiscal quarter the aggregate outstanding principal amount of the Revolving Credit Loans exceeds the Borrower's Working Capital, the Borrower will within five (5) Business Days repay the Revolving Credit Notes, without penalty or premium (other than the amounts due under Section 2.4 or Section 2.5, if applicable), in an amount necessary to cause the outstanding principal amount of the Revolving Credit Loans not to exceed the Borrower's Working Capital as of the last day of such fiscal quarter.

(vii) Prepayments of the Revolving Credit Facility made pursuant to this Section 2.05(b), first, shall be applied ratably to the L/C Borrowings, second, shall be applied to the outstanding Revolving Credit Loans and, third, shall be used to Cash Collateralize the remaining L/C Obligations; and, in the case of prepayments of the Revolving Credit Facility required pursuant to clause (i), (ii), (iii), (iv) or (v) of this Section 2.05(b), the amount remaining, if any, after the prepayment in full of all L/C Borrowings and Revolving Credit Loans outstanding at such time and the Cash Collateralization of the remaining L/C Obligations in full (the sum of such prepayment amounts, cash collateralization amounts and remaining amount being, collectively, the "Reduction Amount") may be retained by the Borrower for use in the ordinary course of its business, and the Revolving Credit Facility shall be automatically and permanently reduced by the Reduction Amount as set forth in Section 2.06(b)(iii). Upon the drawing of any Letter of Credit that has been Cash Collateralized, the funds held as Cash Collateral shall be applied (without any further action by or notice to or from the Borrower or any other Loan Party) to reimburse the L/C Issuer or the Revolving Credit Lenders, as applicable.

## 2.06 Termination or Reduction of Commitments

(a) Optional. The Borrower may, upon notice to the Administrative Agent, terminate the Revolving Credit Facility, the Letter of Credit Sublimit, or from time to time permanently reduce the Revolving Credit Facility or the Letter of Credit Sublimit; provided that (i) any such notice shall be received by the Administrative Agent not later than 11:00 a.m. five Business Days prior to the date of termination or reduction, (ii) any such partial reduction shall be in an aggregate amount of \$5,000,000 or any whole multiple of \$250,000 in excess thereof and (iii) the Borrower shall not terminate or reduce (A) the Revolving Credit Facility if, after giving effect thereto and to any concurrent prepayments hereunder, the Total Revolving Credit Outstandings would exceed the Revolving Credit Facility, or (B) the Letter of Credit Sublimit if, after giving effect thereto, the Outstanding Amount of L/C Obligations not fully Cash Collateralized hereunder would exceed the Letter of Credit Sublimit.

(b) Mandatory.

(i) The Revolving Credit Facility shall be automatically and permanently reduced both (x) on each date on which the prepayment of Revolving Credit Loans outstanding thereunder is required to be made pursuant to Section 2.05(b)(i), (ii), (iii), (iv) or (v) by an amount equal to the applicable Reduction Amount.

(ii) If after giving effect to any reduction or termination of Revolving Credit Commitments under this Section 2.06, the Letter of Credit Sublimit exceeds the Revolving Credit Facility at such time, or the Letter of Credit Sublimit, as the case may be, shall be automatically reduced by the amount of such excess.

(c) Application of Commitment Reductions; Payment of Fees. The Administrative Agent will promptly notify the Lenders of any termination or reduction of the Letter of Credit Sublimit or the Revolving Credit Commitment under this Section 2.06. Upon any reduction of the Revolving Credit Commitments, the Revolving Credit Commitment of each Revolving Credit Lender shall be reduced by such Lender's Applicable Revolving Credit Percentage of such reduction amount. All fees in respect of the Revolving Credit Facility accrued until the effective date of any termination of the Revolving Credit Facility shall be paid on the effective date of such termination.

2.07 Repayment of Loans

(a) Term Loan. The Borrower shall repay to the Term Lenders, Seven Hundred Thousand Dollars (\$700,000) on the last Business Day of each calendar quarter commencing with a payment on June 30, 2017 and on the last Business Day of each calendar quarter thereafter (which amounts shall be reduced as a result of the application of prepayments in accordance with Section 2.05(b)(v)); provided, however, that the final principal payment of the Term Loan shall be made on the Maturity Date for the Term Loan and in any event shall be in an amount equal to the aggregate principal amount of the Term Loan outstanding on such date. The Term Loan may not be reborrowed.

(b) Revolving Credit Loans. The Borrower shall repay to the Revolving Credit Lenders on the Maturity Date for the Revolving Credit Facility the aggregate principal amount of all Revolving Credit Loans outstanding on such date.

2.08 Interest

(a) Subject to the provisions of Section 2.08(b), (i) each Eurodollar Rate Loan shall bear interest on the outstanding principal amount thereof for each Interest Period at a rate per annum equal to the Eurodollar Rate for such Interest Period plus the Applicable Rate for the Term Loan or the Revolving Credit Facility, as applicable; and (ii) each LIBOR Daily Floating Rate Loan for the Term Loan or the Revolving Credit Facility, as applicable, shall bear interest on the outstanding principal amount thereof from the applicable borrowing date at a rate per annum equal to the LIBOR Daily Floating Rate plus the Applicable Rate for the Term Loan or the Revolving Credit Facility, as applicable.

(b) (i) If any amount of principal of any Loan is not paid when due (without regard to any applicable grace periods), whether at stated maturity, by acceleration or otherwise, such amount shall thereafter bear interest at a fluctuating interest rate per annum at all times equal to the Default Rate to the fullest extent permitted by applicable Laws.

(ii) If any amount (other than principal of any Loan) payable by the Borrower under any Loan Document is not paid when due (without regard to any applicable grace periods), whether at stated maturity, by acceleration or otherwise, then upon the request of the Required Lenders such amount shall thereafter bear interest at a fluctuating interest rate per annum at all times equal to the Default Rate to the fullest extent permitted by applicable Laws.

(iii) Upon the request of the Required Lenders, while any Event of Default exists, the Borrower shall pay interest on the principal amount of all outstanding Obligations hereunder at a fluctuating interest rate per annum at all times equal to the Default Rate to the fullest extent permitted by applicable Laws.

(iv) Accrued and unpaid interest on past due amounts (including interest on past due interest) shall be due and payable upon demand.

(c) Interest on each Loan shall be due and payable in arrears on each Interest Payment Date applicable thereto and at such other times as may be specified herein. Interest hereunder shall be due and payable in accordance with the terms hereof before and after judgment, and before and after the commencement of any proceeding under any Debtor Relief Law.

(d) The Borrower hereby authorizes the Administrative Agent to debit any account of the Borrower with the Administrative Agent for the payment of all interest and fees hereunder on or after the date such payments of interest and principal are due.

## 2.09 Fees

In addition to certain fees described in Sections 2.03(i) and (j):

(a) Commitment Fee. The Borrower shall pay to the Administrative Agent for the account of each Revolving Credit Lender in accordance with its Applicable Revolving Credit Percentage, a commitment fee equal to one-half of one percent (0.50%) per annum times the actual daily amount by which the Revolving Credit Facility exceeds the sum of (i) the Outstanding Amount of Revolving Credit Loans and (ii) the Outstanding Amount of L/C Obligations. The commitment fee shall accrue at all times during the Availability Period, including at any time during which one or more of the conditions in Article IV is not met, and shall be due and payable quarterly in arrears on the last Business Day of each March, June, September and December, commencing with the first such date to occur after the Third A&R Effective Date, and, in the case of the commitment fee with respect to the Revolving Credit Facility, on the last day of the Availability Period for the Revolving Credit Facility. The commitment fee shall be calculated quarterly in arrears.

(b) Agency Fees. The Borrower shall pay to the Administrative Agent (for its own account) on the Third A&R Effective Date and on each anniversary thereafter until the Maturity Date with respect to the Term Loan, an annual fee of Ten Thousand Dollars (\$10,000) which shall be fully earned and payable on the Third A&R Effective Date and on each anniversary of the Third A&R Effective Date.

2.10 Computation of Interest and Fees

All computations of fees and interest shall be made on the basis of a 360-day year and actual days elapsed (which results in more fees or interest, as applicable, being paid than if computed on the basis of a 365-day year). Interest shall accrue on each Loan for the day on which the Loan is made, and shall not accrue on a Loan, or any portion thereof, for the day on which the Loan or such portion is paid, provided that any Loan that is repaid on the same day on which it is made shall, subject to Section 2.12(a), bear interest for one day. Each determination by the Administrative Agent of an interest rate or fee hereunder shall be conclusive and binding for all purposes, absent manifest error.

2.11 Evidence of Debt

(a) The Credit Extensions made by each Lender shall be evidenced by one or more accounts or records maintained by such Lender and by the Administrative Agent in the ordinary course of business. The accounts or records maintained by the Administrative Agent and each Lender shall be conclusive absent manifest error of the amount of the Credit Extensions made by the Lenders to the Borrower and the interest and payments thereon. Any failure to so record or any error in doing so shall not, however, limit or otherwise affect the obligation of the Borrower hereunder to pay any amount owing with respect to the Obligations. In the event of any conflict between the accounts and records maintained by any Lender and the accounts and records of the Administrative Agent in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error. Upon the request of any Lender made through the Administrative Agent, the Borrower shall execute and deliver to such Lender (through the Administrative Agent) a Note, which shall evidence such Lender's Loans in addition to such accounts or records. Each Lender may attach schedules to its Note and endorse thereon the date, Type (if applicable), amount and maturity of its Loans and payments with respect thereto.

(b) In addition to the accounts and records referred to in Section 2.11(a), each Lender and the Administrative Agent shall maintain in accordance with its usual practice accounts or records evidencing the purchases and sales by such Lender of participations in Letters of Credit. In the event of any conflict between the accounts and records maintained by the Administrative Agent and the accounts and records of any Lender in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error.

2.12 Payments Generally; Administrative Agent's Clawback

(a) General. All payments to be made by the Borrower shall be made without condition or deduction for any counterclaim, defense, recoupment or setoff. Except as otherwise expressly provided herein, all payments by the Borrower hereunder shall be made to the Administrative Agent, for the account of the respective Lenders to which such payment is owed, at the Administrative Agent's Office in Dollars and in immediately available funds not later than 2:00 p.m. on the date specified herein. The Administrative Agent will promptly distribute to each Lender its Applicable Percentage in respect of the relevant Facility (or other applicable share as provided herein) of such payment in like funds as received by wire transfer to such Lender's Lending Office. All payments received by the Administrative Agent after 2:00 p.m. shall be deemed received on the next succeeding Business Day and any applicable interest or fee shall continue to accrue. If any payment to be made by the Borrower shall come due on a day other than a Business Day, payment shall be made on the next following Business Day, and such extension of time shall be reflected on computing interest or fees, as the case may be.

(b) (i) Funding by Lenders; Presumption by Administrative Agent. Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing of Eurodollar Rate Loans (or, in the case of any Borrowing of LIBOR Daily Floating Rate Loans, prior to 12:00 noon on the date of such Borrowing) that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has made such share available on such date in accordance with Section 2.02 (or, in the case of a Borrowing of LIBOR Daily Floating Rate Loans, that such Lender has made such share available in accordance with and at the time required by Section 2.02) and may, in reliance upon such assumption, make available to the Borrower a corresponding amount. In such event, if a Lender has not in fact made its share of the applicable Borrowing available to the Administrative Agent, then the applicable Lender and the Borrower severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount in immediately available funds with interest thereon, for each day from and including the date such amount is made available to the Borrower to but excluding the date of payment to the Administrative Agent, at (A) in the case of a payment to be made by such Lender, the greater of the Federal Funds Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation, plus any administrative, processing or similar fees customarily charged by the Administrative Agent in connection with the foregoing, and (B) in the case of a payment to be made by the Borrower, the interest rate applicable to LIBOR Daily Floating Rate Loans. If the Borrower and such Lender shall pay such interest to the Administrative Agent for the same or an overlapping period, the Administrative Agent shall promptly remit to the Borrower the amount of such interest paid by the Borrower for such period. If such Lender pays its share of the applicable Borrowing to the Administrative Agent, then the amount so paid shall constitute such Lender's Loan included in such Borrowing. Any payment by the Borrower shall be without prejudice to any claim the Borrower may have against a Lender that shall have failed to make such payment to the Administrative Agent.



(ii) Payments by Borrower; Presumptions by Administrative Agent. Unless the Administrative Agent shall have received notice from the Borrower prior to the time at which any payment is due to the Administrative Agent for the account of the Lenders or the L/C Issuer hereunder that the Borrower will not make such payment, the Administrative Agent may assume that the Borrower has made such payment on such date in accordance herewith and may, in reliance upon such assumption, distribute to the Appropriate Lenders or the L/C Issuer, as the case may be, the amount due. In such event, if the Borrower has not in fact made such payment, then each of the Appropriate Lenders or the L/C Issuer, as the case may be, severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Lender or the L/C Issuer, in immediately available funds with interest thereon, for each day from and including the date such amount is distributed to it to but excluding the date of payment to the Administrative Agent, at the greater of the Federal Funds Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation.

A notice of the Administrative Agent to any Lender or the Borrower with respect to any amount owing under this subsection (b) shall be conclusive, absent manifest error.

(c) Failure to Satisfy Conditions Precedent. If any Lender makes available to the Administrative Agent funds for any Loan to be made by such Lender as provided in the foregoing provisions of this Article II, and such funds are not made available to the Borrower by the Administrative Agent because the conditions to the applicable Credit Extension set forth in Article IV are not satisfied or waived in accordance with the terms hereof, the Administrative Agent shall return such funds (in like funds as received from such Lender) to such Lender, without interest.

(d) Obligations of Lenders Several. The obligations of the Lenders hereunder to make the Term Loan and Revolving Credit Loans, to fund participations in Letters of Credit and to make payments pursuant to Section 11.04(c) are several and not joint. The failure of any Lender to make any Loan, to fund any such participation or to make any payment under Section 11.04(c) on any date required hereunder shall not relieve any other Lender of its corresponding obligation to do so on such date, and no Lender shall be responsible for the failure of any other Lender to so make its Loan, to purchase its participation or to make its payment under Section 11.04(c).

(e) Funding Source. Nothing herein shall be deemed to obligate any Lender to obtain the funds for any Loan in any particular place or manner or to constitute a representation by any Lender that it has obtained or will obtain the funds for any Loan in any particular place or manner.

(f) Insufficient Funds. If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, L/C Borrowings, interest and fees then due hereunder, such funds shall be applied (i) first, toward payment of interest and fees then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and (ii) second, toward payment of principal and L/C Borrowings then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of principal and L/C Borrowings then due to such parties.

2.13 Sharing of Payments by Lenders

If any Lender shall, by exercising any right of setoff or counterclaim or otherwise, obtain payment in respect of (a) Obligations in respect of any the Facilities due and payable to such Lender hereunder and under the other Loan Documents at such time in excess of its ratable share (according to the proportion of (i) the amount of such Obligations due and payable to such Lender at such time to (ii) the aggregate amount of the Obligations in respect of the Facilities due and payable to all Lenders hereunder and under the other Loan Documents at such time) of payments on account of the Obligations in respect of the Facilities due and payable to all Lenders hereunder and under the other Loan Documents at such time obtained by all the Lenders at such time or (b) Obligations in respect of any of the Facilities owing (but not due and payable) to such Lender hereunder and under the other Loan Documents at such time in excess of its ratable share (according to the proportion of (i) the amount of such Obligations owing (but not due and payable) to such Lender at such time to (ii) the aggregate amount of the Obligations in respect of the Facilities owing (but not due and payable) to all Lenders hereunder and under the other Loan Parties at such time) of payment on account of the Obligations in respect of the Facilities owing (but not due and payable) to all Lenders hereunder and under the other Loan Documents at such time obtained by all of the Lenders at such time then the Lender receiving such greater proportion shall (a) notify the Administrative Agent of such fact, and (b) purchase (for cash at face value) participations in the Loans and subparticipations in L/C Obligations of the other Lenders, or make such other adjustments as shall be equitable, so that the benefit of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amount of Obligations in respect of the Facilities then due and payable to the Lenders or owing (but not due and payable) to the Lenders, as the case may be, provided that:

(i) if any such participations or subparticipations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations or subparticipations shall be rescinded and the purchase price restored to the extent of such recovery, without interest; and

(ii) the provisions of this Section shall not be construed to apply to (A) any payment made by the Borrower pursuant to and in accordance with the express terms of this Agreement or (B) any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Loans or subparticipations in L/C Obligations to any assignee or participant, other than to the Borrower or any Subsidiary thereof (as to which the provisions of this Section shall apply).

The Borrower consents to the foregoing and agrees, to the extent it may effectively do so under applicable law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against the Borrower rights of setoff and counterclaim with respect to such participation as fully as if such Lender were a direct creditor of the Borrower in the amount of such participation.

2.14 Cash Collateral

(a) Certain Credit Support Events. If (i) the L/C Issuer has honored any full or partial drawing request under any Letter of Credit and such drawing has resulted in an L/C Borrowing, (ii) as of the Letter of Credit Expiration Date, any L/C Obligation for any reason remains outstanding, (iii) the Borrower shall be required to provide Cash Collateral pursuant to Section 2.05 or 8.02(c), or (iv) there shall exist a Defaulting Lender, the Borrower shall immediately (in the case of clause (iii) above) or within one (1) Business Day (in all other cases) following any request by the Administrative Agent or the L/C Issuer, provide Cash Collateral in an amount not less than the applicable Minimum Collateral Amount (determined in the case of Cash Collateral provided pursuant to clause (iv) above, after giving effect to Section 2.15(a)(iv) and any Cash Collateral provided by the Defaulting Lender).

(b) Grant of Security Interest. The Borrower, and to the extent provided by any Defaulting Lender, such Defaulting Lender, hereby grants to (and subjects to the control of) the Administrative Agent, for the benefit of the Administrative Agent, the L/C Issuer and the Lenders, and agrees to maintain, a first priority security interest in all such cash, deposit accounts and all balances therein, and all other property so provided as collateral pursuant hereto, and in all proceeds of the foregoing, all as security for the obligations to which such Cash Collateral may be applied pursuant to Section 2.14(b). If at any time the Administrative Agent determines that Cash Collateral is subject to any right or claim of any Person other than the Administrative Agent or the L/C Issuer as herein provided, or that the total amount of such Cash Collateral is less than the Minimum Collateral Amount, the Borrower will, promptly upon demand by the Administrative Agent, pay or provide to the Administrative Agent additional Cash Collateral in an amount sufficient to eliminate such deficiency. All Cash Collateral (other than credit support not constituting funds subject to deposit) shall be maintained in blocked, non-interest bearing deposit accounts at Bank of America. The Borrower shall pay on demand therefor from time to time all customary account opening, activity and other administrative fees and charges in connection with the maintenance and disbursement of Cash Collateral.

(c) Application. Notwithstanding anything to the contrary contained in this Agreement, Cash Collateral provided under any of this Section 2.14 or Sections 2.03, 2.15 or 8.02 in respect of Letters of Credit shall be held and applied to the satisfaction of the specific L/C Obligations, obligations to fund participations therein (including, as to Cash Collateral provided by a Revolving Credit Lender that is a Defaulting Lender, any interest accrued on such obligation) and other obligations for which the Cash Collateral was so provided, prior to any other application of such property as may be provided for herein.

(d) Release. Cash Collateral (or the appropriate portion thereof) provided to reduce Fronting Exposure or other obligations shall be released promptly following (i) the elimination of the applicable Fronting Exposure or other obligations giving rise thereto (including by the termination of Defaulting Lender status of the applicable Revolving Credit Lender or, as appropriate, its assignee following compliance with Section 11.06(b)) or (ii) the determination by the Administrative Agent and the L/C Issuer that there exists excess Cash Collateral; provided, however, (A) any such release shall be without prejudice to, and any disbursement or other transfer of Cash Collateral shall be and remain subject to, any other Lien conferred under the Loan Documents and the other applicable provisions of the Loan Documents, and (B) the Person providing Cash Collateral and the L/C Issuer may agree that Cash Collateral shall not be released but instead held to support future anticipated Fronting Exposure or other obligations.

2.15 Defaulting Lenders.

(a) Adjustments. Notwithstanding anything to the contrary contained in this Agreement, if any Lender becomes a Defaulting Lender, then, until such time as that Lender is no longer a Defaulting Lender, to the extent permitted by applicable Law:

(i) Waivers and Amendments. Such Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in the definition of "Required Lenders" and Section 11.01.

(ii) Defaulting Lender Waterfall. Any payment of principal, interest, fees or other amounts received by the Administrative Agent for the account of such Defaulting Lender (whether voluntary or mandatory, at maturity, pursuant to Article VIII or otherwise) or received by the Administrative Agent from a Defaulting Lender pursuant to Section 11.08 shall be applied at such time or times as may be determined by the Administrative Agent as follows: first, to the payment of any amounts owing by such Defaulting Lender to the Administrative Agent hereunder; second, to the payment on a pro rata basis of any amounts owing by such Defaulting Lender to the L/C Issuer hereunder; third, to Cash Collateralize the L/C Issuer's Fronting Exposure with respect to such Defaulting Lender in accordance with Section 2.14; fourth, as the Borrower may request (so long as no Default or Event of Default exists), to the funding of any Loan in respect of which such Defaulting Lender has failed to fund its portion thereof as required by this Agreement, as determined by the Administrative Agent; fifth, if so determined by the Administrative Agent and the Borrower, to be held in a deposit account and released pro rata in order to (A) satisfy such Defaulting Lender's potential future funding obligations with respect to Loans under this Agreement and (B) Cash Collateralize the L/C Issuer's future Fronting Exposure with respect to such Defaulting Lender with respect to future Letters of Credit issued under this Agreement, in accordance with Section 2.14; sixth, to the payment of any amounts owing to the Lenders or the L/C Issuer as a result of any judgment of a court of competent jurisdiction obtained by any Lender, the L/C Issuer or the Swingline Lender against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement; seventh, so long as no Default or Event of Default exists, to the payment of any amounts owing to the Borrower as a result of any judgment of a court of competent jurisdiction obtained by the Borrower against such Defaulting Lender as a result of such Defaulting Lender's breach of its obligations under this Agreement; and eighth, to such Defaulting Lender or as otherwise as may be required under the Loan Documents in connection with any Lien conferred thereunder or directed by a court of competent jurisdiction; provided that if (1) such payment is a payment of the principal amount of any Loans or L/C Borrowings in respect of which such Defaulting Lender has not fully funded its appropriate share, and (2) such Loans were made or the related Letters of Credit were issued at a time when the conditions set forth in Section 4.02 were satisfied or waived, such payment shall be applied solely to pay the Loans of, and L/C Obligations owed to, all Non-Defaulting Lenders on a pro rata basis prior to being applied to the payment of any Loans of, or L/C Obligations owed to, such Defaulting Lender until such time as all Loans and funded and unfunded participations in L/C Obligations are held by the Lenders pro rata in accordance with the Commitments hereunder without giving effect to Section 2.15(a)(v). Any payments, prepayments or other amounts paid or payable to a Defaulting Lender that are applied (or held) to pay amounts owed by a Defaulting Lender or to post Cash Collateral pursuant to this Section 2.15(a)(ii) shall be deemed paid to and redirected by such Defaulting Lender, and each Lender irrevocably consents hereto.

(iii) Certain Fees.

(A) Fees. No Defaulting Lender shall be entitled to receive any fee payable under Section 2.09(a) for any period during which that Lender is a Defaulting Lender (and the Borrower shall not be required to pay any such fee that otherwise would have been required to have been paid to that Defaulting Lender).

(B) Letter of Credit Fees. Each Defaulting Lender shall be entitled to receive Letter of Credit Fees for any period during which that Lender is a Defaulting Lender only to the extent allocable to its Applicable Revolving Percentage of the stated amount of Letters of Credit for which it has provided Cash Collateral pursuant to Section 2.14.

(C) Defaulting Lender Fees. With respect to any Letter of Credit Fee not required to be paid to any Defaulting Lender pursuant to clause (B) above, the Borrower shall (1) pay to each Non-Defaulting Lender that portion of any such fee otherwise payable to such Defaulting Lender with respect to such Defaulting Lender's participation in L/C Obligations that has been reallocated to such Non-Defaulting Lender pursuant to clause (iv) below, (2) pay to the L/C Issuer the amount of any such fee otherwise payable to such Defaulting Lender to the extent allocable to such L/C Issuer's Fronting Exposure to such Defaulting Lender, and (3) not be required to pay the remaining amount of any such fee.

(iv) Reallocation of Applicable Revolving Percentages to Reduce Fronting Exposure. All or any part of such Defaulting Lender's participation in L/C Obligations and Swingline Loans shall be reallocated among the Non-Defaulting Lenders in accordance with their respective Applicable Revolving Percentages (calculated without regard to such Defaulting Lender's Commitment) but only to the extent that (A) the conditions set forth in Section 4.02 are satisfied at the time of such reallocation (and, unless the Borrower shall have otherwise notified the Administrative Agent at such time, the Borrower shall be deemed to have represented and warranted that such conditions are satisfied at such time), and (B) such reallocation does not cause the aggregate Revolving Exposure of any Non-Defaulting Lender to exceed such Non-Defaulting Lender's Revolving Commitment. No reallocation hereunder shall constitute a waiver or release of any claim of any party hereunder against a Defaulting Lender arising from that Lender having become a Defaulting Lender, including any claim of a Non-Defaulting Lender as a result of such Non-Defaulting Lender's increased exposure following such reallocation.

(v) Cash Collateral. If the reallocation described in clause (a)(iv) above cannot, or can only partially, be effected, the Borrower shall, without prejudice to any right or remedy available to it hereunder or under applicable Law, Cash Collateralize the L/C Issuer's Fronting Exposure in accordance with the procedures set forth in Section 2.14.

(b) Defaulting Lender Cure. If the Borrower, the Administrative Agent and the L/C Issuer agree in writing that a Lender is no longer a Defaulting Lender, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein (which may include arrangements with respect to any Cash Collateral), that Lender will, to the extent applicable, purchase at par that portion of outstanding Loans of the other Lenders or take such other actions as the Administrative Agent may determine to be necessary to cause the Loans and funded and unfunded participations in Letters of Credit to be held on a pro rata basis by the Lenders in accordance with their Applicable Percentages (without giving effect to Section 2.15(a)(iv)), whereupon such Lender will cease to be a Defaulting Lender; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Borrower while that Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender's having been a Defaulting Lender.

### ARTICLE III TAXES, YIELD PROTECTION AND ILLEGALITY

#### 3.01 Taxes

(a) Payments Free of Taxes; Obligation to Withhold; Payments on Account of Taxes. (i) Any and all payments by or on account of any obligation of the Borrower hereunder or under any other Loan Document shall to the extent permitted by applicable Laws be made free and clear of and without reduction or withholding for any Taxes. If, however, applicable Laws require the Borrower or the Administrative Agent to withhold or deduct any Tax, such Tax shall be withheld or deducted in accordance with such Laws as determined by the Borrower or the Administrative Agent, as the case may be, upon the basis of the information and documentation to be delivered pursuant to subsection (e) below.

(ii) If the Borrower or the Administrative Agent shall be required by the Code to withhold or deduct any Taxes, including both United States Federal backup withholding and withholding taxes, from any payment, then (A) the Administrative Agent shall withhold or make such deductions as are determined by the Administrative Agent to be required based upon the information and documentation it has received pursuant to subsection (e) below, (B) the Administrative Agent shall timely pay the full amount withheld or deducted to the relevant Governmental Authority in accordance with the Code, and (C) to the extent that the withholding or deduction is made on account of Indemnified Taxes or Other Taxes, the sum payable by the Borrower shall be increased as necessary so that after any required withholding or the making of all required deductions (including deductions applicable to additional sums payable under this Section) the Administrative Agent, Lender or L/C Issuer, as the case may be, receives an amount equal to the sum it would have received had no such withholding or deduction been made.

(b) Payment of Other Taxes by the Borrower. Without limiting the provisions of subsection (a) above, the Borrower shall timely pay any Other Taxes to the relevant Governmental Authority in accordance with applicable law.

(c) Tax Indemnifications. (i) Without limiting the provisions of subsection (a) or (b) above, the Borrower shall, and does hereby indemnify the Administrative Agent, each Lender and the L/C Issuer, and shall make payment in respect thereof within 10 days after demand therefor, for the full amount of any Indemnified Taxes or Other Taxes (including Indemnified Taxes or Other Taxes imposed or asserted on or attributable to amounts payable under this Section) withheld or deducted by the Borrower or the Administrative Agent or paid by the Administrative Agent, such Lender or the L/C Issuer, as the case may be, and any penalties, interest and reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes or Other Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. The Borrower shall also, and does hereby, indemnify the Administrative Agent, and shall make payment in respect thereof within 10 days after demand therefor, for any amount which a Lender or the L/C Issuer for any reason fails to pay indefeasibly to the Administrative Agent as required by clause (ii) of this subsection. A certificate as to the amount of any such payment or liability delivered to the Borrower by a Lender or the L/C Issuer (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender or the L/C Issuer, shall be conclusive absent manifest error.

(ii) Without limiting the provisions of subsection (a) or (b) above, each Lender and the L/C Issuer shall, and does hereby, indemnify the Borrower and the Administrative Agent, and shall make payment in respect thereof within 10 days after demand therefor, against any and all Taxes and any and all related losses, claims, liabilities, penalties, interest and expenses (including the fees, charges and disbursements of any counsel for the Borrower or the Administrative Agent) incurred by or asserted against the Borrower or the Administrative Agent by any Governmental Authority as a result of the failure by such Lender or the L/C Issuer, as the case may be, to deliver, or as a result of the inaccuracy, inadequacy or deficiency of, any documentation required to be delivered by such Lender or the L/C Issuer, as the case may be, to the Borrower or the Administrative Agent pursuant to subsection (e). Each Lender and the L/C Issuer hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender or the L/C Issuer, as the case may be, under this Agreement or any other Loan Document against any amount due to the Administrative Agent under this clause (ii). The agreements in this clause (ii) shall survive the resignation and/or replacement of the Administrative Agent, any assignment of rights by, or the replacement of, a Lender or the L/C Issuer, the termination of the Aggregate Commitments and the repayment, satisfaction or discharge of all other Obligations.

(d) Evidence of Payments. Upon request by the Borrower or the Administrative Agent, as the case may be, after any payment of Taxes by the Borrower or the Administrative Agent to a Governmental Authority as provided in this Section 3.01, the Borrower shall deliver to the Administrative Agent or the Administrative Agent shall deliver to the Borrower, as the case may be, the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of any return required by Laws to report such payment or other evidence of such payment reasonably satisfactory to the Borrower or the Administrative Agent, as the case may be.

(e) Status of Lenders; Tax Documentation. (i) Each Lender shall deliver to the Borrower and to the Administrative Agent, at the time or times prescribed by applicable Laws or when reasonably requested by the Borrower or the Administrative Agent, such properly completed and executed documentation prescribed by applicable Laws or by the taxing authorities of any jurisdiction and such other reasonably requested information as will permit the Borrower or the Administrative Agent, as the case may be, to determine (A) whether or not payments made hereunder or under any other Loan Document are subject to Taxes, (B) if applicable, the required rate of withholding or deduction, and (C) such Lender's entitlement to any available exemption from, or reduction of, applicable Taxes in respect of all payments to be made to such Lender by the Borrower pursuant to this Agreement or otherwise to establish such Lender's status for withholding tax purposes in the applicable jurisdiction.

(ii) Without limiting the generality of the foregoing, if the Borrower is resident for tax purposes in the United States,



(A) any Lender that is a “United States person” within the meaning of Section 7701(a)(30) of the Code shall deliver to the Borrower and the Administrative Agent executed originals of Internal Revenue Service Form W-9 or such other documentation or information prescribed by applicable Laws or reasonably requested by the Borrower or the Administrative Agent as will enable the Borrower or the Administrative Agent, as the case may be, to determine whether or not such Lender is subject to backup withholding or information reporting requirements; and

(B) each Foreign Lender that is entitled under the Code or any applicable treaty to an exemption from or reduction of withholding tax with respect to payments hereunder or under any other Loan Document shall deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the request of the Borrower or the Administrative Agent, but only if such Foreign Lender is legally entitled to do so), whichever of the following is applicable:

(I) executed originals of Internal Revenue Service Form W-BENE (or W-8BEN, as applicable) claiming eligibility for benefits of an income tax treaty to which the United States is a party,

(II) executed originals of Internal Revenue Service Form W-8ECI,

(III) executed originals of Internal Revenue Service Form W-8IMY and all required supporting documentation,

(IV) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under section 881(c) of the Code, (x) a certificate to the effect that such Foreign Lender is not (A) a “bank” within the meaning of section 881(c)(3)(A) of the Code, (B) a “10 percent shareholder” of the Borrower within the meaning of section 881(c)(3)(B) of the Code, or (C) a “controlled foreign corporation” described in section 881(c)(3)(C) of the Code and (y) executed originals of Internal Revenue Service Form W-BENE (or W-8BEN, as applicable),

(V) to the extent a Foreign Lender is not the beneficial owner, executed copies of IRS Form W-8IMY, accompanied by IRS Form W-SECT, IRS Form W-8BENE (or W-8BEN, as applicable), a U.S. Tax Compliance Certificate substantially in the form of Exhibit G-2 or Exhibit G-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit G-4 on behalf of each such direct and indirect partner; or

(VI) executed originals of any other form prescribed by applicable Laws as a basis for claiming exemption from or a reduction in United States Federal withholding tax together with such supplementary documentation as may be prescribed by applicable Laws to permit the Borrower or the Administrative Agent to determine the withholding or deduction required to be made.

(iii) Each Lender shall promptly:

(A) notify the Borrower and the Administrative Agent of any change in circumstances which would modify or render invalid any claimed exemption or reduction; and

(B) take such steps as shall not be materially disadvantageous to it, in the reasonable judgment of such Lender, and as may be reasonably necessary (including the re-designation of its Lending Office) to avoid any requirement of applicable Laws of any jurisdiction that the Borrower or the Administrative Agent make any withholding or deduction for taxes from amounts payable to such Lender.

(C) If a payment made to a Lender under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Borrower and the Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by the Borrower or the Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower or the Administrative Agent as may be necessary for the Borrower and the Administrative Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (C), "FATCA" shall include any amendments made to FATCA after the date of this Agreement. For purposes of determining withholding Taxes imposed under FATCA, from and after the Third A&R Effective Date, the Borrower and the Administrative Agent shall treat (and the Lenders hereby authorize the Administrative Agent to treat) this Agreement as not qualifying as a "grandfathered obligation" within the meaning of Treasury Regulation Section 1.1471-2(b)(2)(i).

(f) Treatment of Certain Refunds. Unless required by applicable Laws, at no time shall the Administrative Agent have any obligation to file for or otherwise pursue on behalf of a Lender or the L/C Issuer, or have any obligation to pay to any Lender or the L/C Issuer, any refund of Taxes withheld or deducted from funds paid for the account of such Lender or the L/C Issuer, as the case may be. If the Administrative Agent, any Lender or the L/C Issuer determines, in its sole discretion, that it has received a refund of any Taxes or Other Taxes as to which it has been indemnified by the Borrower or with respect to which the Borrower has paid additional amounts pursuant to this Section, it shall pay to the Borrower an amount equal to such refund (but only to the extent of indemnity payments made, or additional amounts paid, by the Borrower under this Section with respect to the Taxes or Other Taxes giving rise to such refund), net of all out-of-pocket expenses incurred by the Administrative Agent, such Lender or the L/C Issuer, as the case may be, and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund), provided that the Borrower, upon the request of the Administrative Agent, such Lender or the L/C Issuer, agrees to repay the amount paid over to the Borrower (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) to the Administrative Agent, such Lender or the L/C Issuer in the event the Administrative Agent, such Lender or the L/C Issuer is required to repay such refund to such Governmental Authority. This subsection shall not be construed to require the Administrative Agent, any Lender or the L/C Issuer to make available its tax returns (or any other information relating to its taxes that it deems confidential) to the Borrower or any other Person.

### 3.02 Illegality

If any Lender determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for any Lender or its applicable Lending Office to make, maintain or fund Eurodollar Rate Loans, or to determine or charge interest rates based upon the Eurodollar Rate, or any Governmental Authority has imposed material restrictions on the authority of such Lender to purchase or sell, or to take deposits of, Dollars in the London interbank market, then, on notice thereof by such Lender to the Borrower through the Administrative Agent, any obligation of such Lender to make or continue Eurodollar Rate Loans or to convert LIBOR Daily Floating Rate Loans to Eurodollar Rate Loans shall be suspended until such Lender notifies the Administrative Agent and the Borrower that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, the Borrower shall, upon demand from such Lender (with a copy to the Administrative Agent), prepay or, if applicable, convert all Eurodollar Rate Loans of such Lender to LIBOR Daily Floating Rate Loans, either on the last day of the Interest Period therefor, if such Lender may lawfully continue to maintain such Eurodollar Rate Loans to such day, or immediately, if such Lender may not lawfully continue to maintain such Eurodollar Rate Loans. Upon any such prepayment or conversion, the Borrower shall also pay accrued interest on the amount so prepaid or converted.

### 3.03 Inability to Determine Rates

If in connection with any request for a Eurodollar Rate Loan or a conversion to or continuation thereof, (a) the Required Lenders determine that (i) Dollar deposits are not being offered to banks in the London interbank Eurodollar market for the applicable amount and Interest Period of such Eurodollar Rate Loan (in each case with respect to clause (a)(i), “Impacted Loans”), (ii) adequate and reasonable means do not exist for determining the Eurodollar Rate for any requested Interest Period with respect to a proposed Eurodollar Rate Loan or in connection with an existing or proposed LIBOR Daily Floating Rate Loan, or (iii) for any reason the Eurodollar Rate for any requested Interest Period with respect to a proposed Eurodollar Rate Loan does not adequately and fairly reflect the cost to such Lenders of funding such Eurodollar Rate Loan, the Administrative Agent will promptly so notify the Borrower and each Lender. Thereafter, the obligation of the Lenders to make or maintain Eurodollar Rate Loans shall be suspended (to the extent of the affected Eurodollar Rate Loans or Interest Periods). Upon receipt of such notice, the Borrower may revoke any pending request for a Borrowing of, conversion to or continuation of Eurodollar Rate Loans (to the extent of the affected Eurodollar Rate Loans or Interest Periods) or, failing that, will be deemed to have converted such request into a request for a Borrowing at the rate so determined by the Administrative Agent in accordance with the terms hereof in the amount specified therein.

Notwithstanding the foregoing, if the Required Lenders have made the determination described in clause (a) (i) of this section, the Administrative Agent, in consultation with the Borrower and the affected Lenders, may establish an alternative interest rate for the Impacted Loans, in which case, such alternative rate of interest shall apply with respect to the Impacted Loans until (1) the Administrative Agent revokes the notice delivered with respect to the Impacted Loans under clause (a) of the first sentence of this section, (2) the Administrative Agent or the Required Lenders notify the Administrative Agent and the Borrower that such alternative interest rate does not adequately and fairly reflect the cost to such Lenders of funding the Impacted Loans, or (3) any Lender determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for such Lender or its applicable Lending Office to make, maintain or fund Loans whose interest is determined by reference to such alternative rate of interest or to determine or charge interest rates based upon such rate or any Governmental Authority has imposed material restrictions on the authority of such Lender to do any of the foregoing and provides the Administrative Agent and the Borrower written notice thereof.

### 3.04 Increased Costs; Reserves on Eurodollar Rate Loans

(a) Increased Costs Generally. If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or credit extended or participated in by, any Lender (except any reserve requirement reflected in the Eurodollar Rate) or the L/C Issuer;

(ii) subject any Lender or the L/C Issuer to any tax of any kind whatsoever with respect to this Agreement, any Letter of Credit, any participation in a Letter of Credit or any Eurodollar Rate Loan made by it, or change the basis of taxation of payments to such Lender or the L/C Issuer in respect thereof (except for Indemnified Taxes or Other Taxes covered by Section 3.01 and the imposition of, or any change in the rate of, any Excluded Tax payable by such Lender or the L/C Issuer); or

(iii) impose on any Lender or the L/C Issuer or the London interbank market any other condition, cost or expense affecting this Agreement or Eurodollar Rate Loans made by such Lender or any Letter of Credit or participation therein;

and the result of any of the foregoing shall be to increase the cost to such Lender of making or maintaining any Eurodollar Rate Loan (or of maintaining its obligation to make any such Loan), or to increase the cost to such Lender or the L/C Issuer of participating in, issuing or maintaining any Letter of Credit (or of maintaining its obligation to participate in or to issue any Letter of Credit), or to reduce the amount of any sum received or receivable by such Lender or the L/C Issuer hereunder (whether of principal, interest or any other amount) then, upon request of such Lender or the L/C Issuer, the Borrower will pay to such Lender or the L/C Issuer, as the case may be, such additional amount or amounts as will compensate such Lender or the L/C Issuer, as the case may be, for such additional costs incurred or reduction suffered.

(b) Capital Requirements. If any Lender or the L/C Issuer determines that any Change in Law affecting such Lender or the L/C Issuer or any Lending Office of such Lender or such Lender's or the L/C Issuer's holding company, if any, regarding capital requirements has or would have the effect of reducing the rate of return on such Lender's or the L/C Issuer's capital or on the capital of such Lender's or the L/C Issuer's holding company, if any, as a consequence of this Agreement, the Commitments of such Lender or the Loans made by, or participations in Letters of Credit held by, such Lender, or the Letters of Credit issued by the L/C Issuer, to a level below that which such Lender or the L/C Issuer or such Lender's or the L/C Issuer's holding company could have achieved but for such Change in Law (taking into consideration such Lender's or the L/C Issuer's policies and the policies of such Lender's or the L/C Issuer's holding company with respect to capital adequacy), then from time to time the Borrower will pay to such Lender or the L/C Issuer, as the case may be, such additional amount or amounts as will compensate such Lender or the L/C Issuer or such Lender's or the L/C Issuer's holding company for any such reduction suffered.

(c) Certificates for Reimbursement. A certificate of a Lender or the L/C Issuer setting forth the amount or amounts necessary to compensate such Lender or the L/C Issuer or its holding company, as the case may be, as specified in subsection (a) or (b) of this Section and delivered to the Borrower shall be conclusive absent manifest error. The Borrower shall pay such Lender or the L/C Issuer, as the case may be, the amount shown as due on any such certificate within 10 days after receipt thereof.

(d) Delay in Requests. Failure or delay on the part of any Lender or the L/C Issuer to demand compensation pursuant to the foregoing provisions of this Section shall not constitute a waiver of such Lender's or the L/C Issuer's right to demand such compensation, provided that the Borrower shall not be required to compensate a Lender or the L/C Issuer pursuant to the foregoing provisions of this Section for any increased costs incurred or reductions suffered more than nine months prior to the date that such Lender or the L/C Issuer, as the case may be, notifies the Borrower of the Change in Law giving rise to such increased costs or reductions and of such Lender's or the L/C Issuer's intention to claim compensation therefor (except that, if the Change in Law giving rise to such increased costs or reductions is retroactive, then the nine-month period referred to above shall be extended to include the period of retroactive effect thereof).

### 3.05 Compensation for Losses

Upon demand of any Lender (with a copy to the Administrative Agent) from time to time, the Borrower shall promptly compensate such Lender for and hold such Lender harmless from any loss, cost or expense incurred by it as a result of:

(a) any continuation, conversion, payment or prepayment of any Loan other than a LIBOR Daily Floating Rate Loan on a day other than the last day of the Interest Period for such Loan (whether voluntary, mandatory, automatic, by reason of acceleration, or otherwise);

(b) any failure by the Borrower (for a reason other than the failure of such Lender to make a Loan) to prepay, borrow, continue or convert any Loan other than a LIBOR Daily Floating Rate Loan on the date or in the amount notified by the Borrower; or

(c) any assignment of a Eurodollar Rate Loan on a day other than the last day of the Interest Period therefor as a result of a request by the Borrower pursuant to Section 11.13;

including any loss of anticipated profits and any loss or expense arising from the liquidation or reemployment of funds obtained by it to maintain such Loan or from fees payable to terminate the deposits from which such funds were obtained. The Borrower shall also pay any customary administrative fees charged by such Lender in connection with the foregoing.

For purposes of calculating amounts payable by the Borrower to the Lenders under this Section 3.05, each Lender shall be deemed to have funded each Eurodollar Rate Loan made by it at the Eurodollar Rate for such Loan by a matching deposit or other borrowing in the London interbank eurodollar market for a comparable amount and for a comparable period, whether or not such Eurodollar Rate Loan was in fact so funded.

### 3.06 Mitigation Obligations: Replacement of Lenders

(a) Designation of a Different Lending Office. If any Lender requests compensation under Section 3.04, or the Borrower is required to pay any additional amount to any Lender, the L/C Issuer, or any Governmental Authority for the account of any Lender or the L/C Issuer pursuant to Section 3.01, or if any Lender gives a notice pursuant to Section 3.02, then such Lender or the L/C Issuer shall, as applicable, use reasonable efforts to designate a different Lending Office for funding or booking its Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender or the L/C Issuer, such designation or assignment (i) would eliminate or reduce amounts payable pursuant to Section 3.01 or 3.04, as the case may be, in the future, or eliminate the need for the notice pursuant to Section 3.02, as applicable, and (ii) in each case, would not subject such Lender or the L/C Issuer, as the case may be, to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Lender or the L/C Issuer, as the case may be. The Borrower hereby agrees to pay all reasonable costs and expenses incurred by any Lender or the L/C Issuer in connection with any such designation or assignment.

(b) Replacement of Lenders. If any Lender requests compensation under Section 3.04, or if the Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 3.01, the Borrower may replace such Lender in accordance with Section 11.13.

3.07 Survival

All of the Borrower's obligations under this Article III shall survive termination of the Aggregate Commitments, repayment of all other Obligations hereunder, and resignation of the Administrative Agent.

ARTICLE IV  
CONDITIONS PRECEDENT TO CREDIT EXTENSIONS

4.01 Conditions of Initial Credit Extension

The obligation of the L/C Issuer and each Lender to enter into this Agreement is subject to satisfaction of the following conditions precedent:

(a) The Administrative Agent's receipt of the following, each of which shall be originals or telecopies (followed promptly by originals) unless otherwise specified, each properly executed by a Responsible Officer of the signing Loan Party, each dated the Third A&R Effective Date (or, in the case of certificates of governmental officials, a recent date before the Third A&R Effective Date) and each in form and substance satisfactory to the Administrative Agent and each of the Lenders:

- (i) executed counterparts of this Agreement and the Guaranty, sufficient in number for distribution to the Administrative Agent, each Lender and the Borrower;
- (ii) a Note executed by the Borrower in favor of each Lender requesting a Note;
- (iii) confirmation of security agreements, in form and substance reasonably acceptable to the Lenders;

(iv) such certificates of resolutions or other action, incumbency certificates and/or other certificates of Responsible Officers of each Loan Party as the Administrative Agent may require evidencing the identity, authority and capacity of each Responsible Officer thereof authorized to act as a Responsible Officer in connection with this Agreement and the other Loan Documents to which such Loan Party is a party or is to be a party;

(v) such documents and certifications as the Administrative Agent may reasonably require to evidence that each Loan Party is duly organized or formed, and that the Borrower is validly existing, in good standing and qualified to engage in business in each jurisdiction where its ownership, lease or operation of properties or the conduct of its business requires such qualification, except to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect;

(vi) a favorable opinion of Burns & Levinson LLP, counsel to the Loan Parties, addressed to the Administrative Agent and each Lender, as the Required Lenders may reasonably request;

(vii) a certificate signed by a Responsible Officer of the Borrower certifying (A) that the conditions specified in Sections 4.02(a) and (b) have been satisfied, and (B) that there has been no event or circumstance since the date of the Audited Financial Statements that has had or could be reasonably expected to have, either individually or in the aggregate, a Material Adverse Effect since December 31, 2016;

(viii) certificates attesting to the Solvency of each Loan Party from its chief financial officer;

(ix) [Reserved];

(x) no Default or Event of Default shall have occurred and be continuing; and

(xi) such other assurances, certificates, documents, consents or opinions as the Administrative Agent, the L/C Issuer or any Lender reasonably may require.

(b) (i) All fees required to be paid to the Administrative Agent on or before the Third A&R Effective Date shall have been paid, including, without limitation, the Agency Fee, and (ii) all fees required to be paid to the Lenders on or before the Third A&R Effective Date shall have been paid.

(c) Unless waived by the Administrative Agent, the Borrower shall have paid all fees, charges and disbursements of counsel to the Administrative Agent (directly to such counsel if requested by the Administrative Agent) to the extent invoiced prior to or on the Third A&R Effective Date, plus such additional amounts of such fees, charges and disbursements as shall constitute its reasonable estimate of such fees, charges and disbursements incurred or to be incurred by it through the closing proceedings ( provided that such estimate shall not thereafter preclude a final settling of accounts between the Borrower and the Administrative Agent).



Without limiting the generality of the provisions of the last paragraph of Section 9.03, for purposes of determining compliance with the conditions specified in this Section 4.01, each Lender that has signed this Agreement shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received notice from such Lender prior to the proposed Third A&R Effective Date specifying its objection thereto.

4.02 Conditions to all Credit Extensions

The obligation of each Lender to honor any Request for Credit Extension (other than a Committed Loan Notice requesting only a conversion of Loans to the other Type, or a continuation of Eurodollar Rate Loans) is subject to the following conditions precedent:

(a) The representations and warranties of the Borrower contained in Article V or any other Loan Document, or which are contained in any document furnished at any time under or in connection herewith or therewith, shall be true and correct in all material respects (except that such materiality qualifier shall not be applicable to any representations and warranties that are already qualified or modified by materiality) on and as of the date of such Credit Extension, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct as of such earlier date in all material respects (except that such materiality qualifier shall not be applicable to any representations and warranties that are already qualified or modified by materiality), and except that for purposes of this Section 4.02, the representations and warranties contained in Sections 5.05(a) and (b) shall be deemed to refer to the most recent statements furnished pursuant to Sections 6.01(a) and (b), respectively.

(b) No Default or Event of Default shall exist, or would result from such proposed Credit Extension or from the application of the proceeds thereof.

(c) The Administrative Agent and, if applicable, or the L/C Issuer shall have received a Request for Credit Extension in accordance with the requirements hereof.

Each Request for Credit Extension (other than a Committed Loan Notice requesting only a conversion of Loans to the other Type or a continuation of Eurodollar Rate Loans) submitted by the Borrower shall be deemed to be a representation and warranty that the conditions specified in Sections 4.02(a) and (b) have been satisfied on and as of the date of the applicable Credit Extension.

ARTICLE V  
REPRESENTATIONS AND WARRANTIES

The Borrower represents and warrants to the Administrative Agent and the Lenders (and such representations are re-made by the Borrower each time the Borrower submits a quarterly Compliance Certificate pursuant to Section 6.02) that:

5.01 Existence, Qualification and Power

Each Loan Party and each of its Subsidiaries (a) is duly organized or formed, validly existing and, as applicable, in good standing under the Laws of the jurisdiction of its incorporation or organization, (b) has all requisite power and authority and all requisite governmental licenses, authorizations, consents and approvals to (i) own or lease its assets and carry on its business and (ii) execute, deliver and perform its obligations under the Loan Documents to which it is a party and consummate the Transaction, and (c) is duly qualified and is licensed and, as applicable, in good standing under the Laws of each jurisdiction where its ownership, lease or operation of properties or the conduct of its business requires such qualification or license; except in each case referred to in clause (b)(i) or (c), to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect.

5.02 Authorization; No Contravention

The execution, delivery and performance by each Loan Party of each Loan Document to which such Person is a party have been duly authorized by all necessary corporate or other organizational action, and do not and will not (a) contravene the terms of any of such Person's Organization Documents; (b) conflict with or result in any breach or contravention of, or the creation of any Lien under, or require any payment to be made under (i) any Contractual Obligation to which such Person is a party or affecting such Person or the properties of such Person or any of its Subsidiaries or (ii) any order, injunction, writ or decree of any Governmental Authority or any arbitral award to which such Person or its property is subject; or (c) violate any Law.

5.03 Governmental Authorization; Other Consents

No approval, consent, exemption, authorization, or other action by, or notice to, or filing with, any Governmental Authority or any other Person is necessary or required in connection with (a) the execution, delivery or performance by, or enforcement against, any Loan Party of this Agreement or any other Loan Document, (b) the grant by any Loan Party of the Liens granted by it pursuant to the Collateral Documents, (c) the perfection or maintenance of the Liens created under the Collateral Documents (including the first priority nature thereof) or (d) the exercise by the Administrative Agent or any Lender of its rights under the Loan Documents or the remedies in respect of the Collateral pursuant to the Collateral Documents.

5.04 Binding Effect

This Agreement has been, and each other Loan Document, when delivered hereunder, will have been, duly executed and delivered by each Loan Party that is party thereto. This Agreement constitutes, and each other Loan Document when so delivered will constitute, a legal, valid and binding obligation of such Loan Party, enforceable against each Loan Party that is party thereto in accordance with its terms.

5.05 Financial Statements: No Material Adverse Effect

(a) The Audited Financial Statements (i) were prepared in accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein; (ii) fairly present in all material respects the financial condition of the Borrower and its Subsidiaries as of the date thereof and their results of operations for the period covered thereby in accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein; and (iii) show all material indebtedness and other liabilities, direct or contingent, of the Borrower and its Subsidiaries as of the date thereof, including liabilities for taxes, material commitments and Indebtedness.

(b) Since the date of the Audited Financial Statements, there has been no event or circumstance, either individually or in the aggregate, that has had or could reasonably be expected to have a Material Adverse Effect.

5.06 Litigation

Except as set forth on Schedule 5.06 attached hereto, there is no action, proceeding or investigation pending or threatened (or any basis therefor known to the Borrower) (i) which questions the validity of this Agreement, the Notes, the Loan Documents, or the other documents executed in connection herewith or therewith, or any action taken or to be taken pursuant hereto or thereto, or (ii) which if adversely determined against the Borrower, would result in liability of the Borrower in an amount which exceeds \$250,000.

5.07 No Default

Neither the Borrower nor any Subsidiary thereof is in default under or with respect to, or a party to, any Contractual Obligation that could, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

5.08 Ownership of Property; Liens; Investments

(a) The Borrower and each of its Subsidiaries has good record and marketable title in fee simple to, or valid leasehold interests in, all real property necessary or used in the ordinary conduct of its business, except for such defects in title as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(b) The property of the Borrower and each of its Subsidiaries is subject to no Liens, other than Permitted Liens.

(c) Schedule 5.08(c) sets forth a complete and accurate list of all real property owned by the Borrower and each of its Subsidiaries, showing as of the date hereof the street address, county or other relevant jurisdiction, state, record owner and book and fair value thereof. Each Loan Party and each of its Subsidiaries has good and marketable title to the real property owned by the Borrower or such Subsidiary, free and clear of all Liens, other than Permitted Liens.

(d) (i) Schedule 5.08(d)(i) sets forth a complete and accurate list of all leases of real property under which the Borrower or any Subsidiary of the Borrower is the lessee, showing as of the date hereof the street address, county or other relevant jurisdiction, state, lessor, lessee, expiration date and annual rental cost thereof. Each such lease is the legal, valid and binding obligation of the lessor thereof, enforceable in accordance with its terms.

(ii) Schedule 5.08(d)(ii) sets forth a complete and accurate list of all leases of real property under which any Loan Party or any Subsidiary of the Borrower is the lessor, showing as of the date hereof the street address, county or other relevant jurisdiction, state, lessor, lessee, expiration date and annual rental cost thereof. Each such lease is the legal, valid and binding obligation of the lessee thereof, enforceable in accordance with its terms.

(e) Schedule 5.08(e) sets forth a complete and accurate list of all Investments held by the Borrower or any Subsidiary of the Borrower on the date hereof, showing as of the date hereof the amount, obligor or issuer and maturity, if any, thereof.

(f) Schedule 5.08(f) sets forth a list of all banks and other financial institutions and depositories at which the Borrowers and/or any Domestic Subsidiary maintains (or has caused to be maintained) or will maintain deposit accounts, operating accounts, or other accounts of any kind or nature into which funds of the Borrower or any Domestic Subsidiary are from time to time deposited and correctly identifies the name and address of each depository, the name in which each account is held, the purpose of the account and the complete account number.

#### 5.09 Environmental Compliance

With respect to existing Environmental Laws and claims alleging potential liability or responsibility for violation of any Environmental Law, Borrower has reasonably concluded that such Environmental Laws and claims could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

#### 5.10 Tax Returns and Payments

The Borrower and its Subsidiaries have filed all tax returns required by law to be filed and have paid all taxes, assessments and other governmental charges levied upon any of their respective properties, assets, income or franchises, other than those (i) not yet delinquent, (ii) not material in aggregate amount, (iii) being or about to be contested as provided in subsection 5.4 and/or (iv) not reasonably likely to have a Material Adverse Effect. The charges, accruals and reserves on the books of the Borrower and its Subsidiaries in respect of their respective taxes are adequate in the opinion of the Borrower, and the Borrower knows of no unpaid assessment for additional taxes or of any basis therefor other than those which in the aggregate, are not reasonably likely to have a Material Adverse Effect.

5.11 ERISA Compliance

(a) Schedule 5.11 sets forth a true, correct and complete list of all material employee benefit plans and arrangements of the Borrower and its Subsidiaries, including, without limitation, all pension profit sharing or similar plans providing for a program of deferred compensation to any employee or any plan, subject to the provisions of ERISA.

(b) Each Plan is in compliance in all material respects with the applicable provisions of ERISA, the Code and other Federal or state Laws. Each Plan that is intended to qualify under Section 401(a) of the Code has received a favorable determination letter from the IRS or an application for such a letter is currently being processed by the IRS with respect thereto and, to the best knowledge of the Borrower, nothing has occurred which would prevent, or cause the loss of, such qualification. The Borrower and each ERISA Affiliate have made all required contributions to each Plan subject to Section 412 of the Code, and no application for a funding waiver or an extension of any amortization period pursuant to Section 412 of the Code has been made with respect to any Plan.

(c) There are no pending or, to the best knowledge of the Borrower, threatened claims, actions or lawsuits, or action by any Governmental Authority, with respect to any Plan that could reasonably be expected to have a Material Adverse Effect. There has been no prohibited transaction or violation of the fiduciary responsibility rules with respect to any Plan that has resulted or could reasonably be expected to result in a Material Adverse Effect.

(d) (i) No ERISA Event has occurred or is reasonably expected to occur; (ii) no Pension Plan has any Unfunded Pension Liability; (iii) neither the Borrower nor any ERISA Affiliate has incurred, or reasonably expects to incur, any liability under Title IV of ERISA with respect to any Pension Plan (other than premiums due and not delinquent under Section 4007 of ERISA); (iv) neither the Borrower nor any ERISA Affiliate has incurred, or reasonably expects to incur, any liability (and no event has occurred which, with the giving of notice under Section 4219 of ERISA, would result in such liability) under Section 4201 or 4243 of ERISA with respect to a Multiemployer Plan; and (v) neither the Borrower nor any ERISA Affiliate has engaged in a transaction that could be subject to Section 4069 or 4212(c) of ERISA.

5.12 Subsidiaries; Equity Interests; Loan Parties

The Borrower has no Subsidiaries other than those specifically disclosed in Part (a) of Schedule 5.12, and all of the outstanding Equity Interests in such Subsidiaries have been validly issued, are fully paid and non-assessable and are owned by a Loan Party in the amounts specified on Part (a) of Schedule 5.12 free and clear of all Liens except those created under the Collateral Documents or Permitted Liens. The Borrower has no equity investments in any other corporation or entity other than those specifically disclosed in Part (b) of Schedule 5.12. Set forth on Part (d) of Schedule 5.12 is a complete and accurate list of all Loan Parties, showing as of the Third A&R Effective Date (as to each Loan Party) the jurisdiction of its incorporation, the address of its principal place of business and its U.S. taxpayer identification number or, in the case of any Foreign Subsidiary that does not have a U.S. taxpayer identification number, its unique identification number issued to it by the jurisdiction of its incorporation. The copy of the charter of each Loan Party and each amendment thereto provided pursuant to Section 4.01(a) is a true and correct copy of each such document, each of which is valid and in full force and effect.

5.13 Margin Regulations; Investment Company Act

(a) The Borrower is not engaged and will not engage, principally or as one of its important activities, in the business of purchasing or carrying margin stock or margin securities (within the meaning of Regulation U and Regulation T issued by the FRB), or extending credit for the purpose of purchasing or carrying margin stock.

(b) None of the Borrower, any Person Controlling the Borrower, or any Subsidiary is or is required to be registered as an “investment company” under the Investment Company Act of 1940.

5.14 Disclosure

The Borrower has disclosed to the Administrative Agent and the Lenders all agreements, instruments and corporate or other restrictions to which it or any of its Subsidiaries is subject, and all other matters known to it, that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. No report, financial statement, certificate or other information furnished (whether in writing or orally) by or on behalf of any Loan Party to the Administrative Agent or any Lender in connection with the transactions contemplated hereby and the negotiation of this Agreement or delivered hereunder or under any other Loan Document (in each case as modified or supplemented by other information so furnished) contains any material misstatement of fact or omits to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that, with respect to projected financial information, the Borrower represents only that such information was prepared in good faith based upon assumptions believed to be reasonable at the time and the Borrower makes no representation about information of a general economic nature and general information about the industry of the Borrower or any of its Subsidiaries.

5.15 Compliance with Laws

Each Loan Party and each Subsidiary thereof is in compliance in all material respects with the requirements of all Laws and all orders, writs, injunctions and decrees applicable to it or to its properties, except in such instances in which (a) such requirement of Law or order, writ, injunction or decree is being contested in good faith by appropriate proceedings diligently conducted or (b) the failure to comply therewith, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

5.16 Intellectual Property; Licenses, Etc .

The Borrower and each of its Subsidiaries own, or possess the right to use, all of the trademarks, service marks, trade names, copyrights, patents, patent rights, franchises, licenses and other intellectual property rights (collectively, “IP Rights”) that are reasonably necessary for the operation of their respective businesses, without conflict with the rights of any other Person. Schedule 5.16 sets forth a complete and accurate list of: (a) all registered copyrights owned by the Borrower or any Subsidiary, all applications for registration of copyrights owned by the Borrower or any Subsidiary, and all other Copyrights owned by the Borrower or any Subsidiary and material or reasonably necessary to the conduct of the business of the Borrower or any Subsidiary; (b) all registered patents owned by the Borrower or any Subsidiary and all applications for patents owned by the Borrower or any Subsidiary; (c) all registered trademarks owned by the Borrower or any Subsidiary, all applications for registration of trademarks owned by the Borrower or any Subsidiary, and all other trademarks owned by the Borrower or any Subsidiary and material or reasonably necessary to the conduct of the business of the Borrower or any Subsidiary, and (d) all intellectual property licenses entered into by the Borrower or any Subsidiary pursuant to which (x) the Borrower or any Subsidiary has provided any license or other rights in intellectual property owned or controlled by the Borrower or any Subsidiary to any other Person or (y) any Person has granted to the Borrower or any Subsidiary any license or other rights in intellectual property owned or controlled by such Person that is material to the business of the Borrower or any Subsidiary. To the best knowledge of the Borrower, no slogan or other advertising device, product, process, method, substance, part or other material now employed, or now contemplated to be employed, by the Borrower or any of its Subsidiaries infringes upon any rights held by any other Person. No claim or litigation regarding any of the foregoing is pending or, to the best knowledge of the Borrower, threatened, which, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

5.17 Solvency

The Borrower is, individually and together with its Subsidiaries on a consolidated basis, Solvent.

5.18 Casualty, Etc.

Neither the businesses nor the properties of the Borrower or any of its Subsidiaries are affected by any fire, explosion, accident, strike, lockout or other labor dispute, drought, storm, hail, earthquake, embargo, act of God or of the public enemy or other casualty (whether or not covered by insurance) that, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

5.19 Collateral Documents

The provisions of the Collateral Documents are effective to create in favor of the Administrative Agent for the benefit of the Secured Parties a legal, valid and enforceable first priority Lien (subject to Liens permitted by Section 7.01) on all right, title and interest of the respective Loan Parties in the Collateral described therein.

5.20 Material Agreements

The Borrower's most recent form 10-K filed with the SEC, as supplemented by the Borrower's forms 10-Q and 8-K filed with the SEC thereafter, accurately and completely lists each material agreement and instrument required to be disclosed therein, including but not limited to any material leases, employment agreements or other agreements with management of the Borrower or any Subsidiary, stockholder agreements and all other material agreements required to be disclosed therein. Each of the Borrower and its Subsidiaries (as applicable) and, to the best of the Borrower's knowledge, all third parties to such material agreements, are in material compliance with the terms thereof, and no default or event of default by the Borrower or, to the Borrower's knowledge, any other party thereto, exists thereunder.

5.21 Eligible Receivables

The Eligible Receivables included in the calculation of minimum Working Capital are bona fide existing payment obligations of Account Debtors created by the sale or lease and delivery of Inventory or the rendition of services to such Account Debtors in the ordinary course of Borrower's and/or its Subsidiaries' business, owed to Borrower and/or such Subsidiaries without defenses, disputes, offsets, counterclaims, or rights of return or cancellation (other than normal return policies) known to the Borrower or such Subsidiary. As to each Receivable that is identified by Borrower as an Eligible Receivable in a Compliance Certificate submitted to Administrative Agent, such Account is not excluded as ineligible by virtue of one or more of the excluding criteria set forth in the definition of Eligible Receivables, other than subsection (f) which is qualified to the Borrower's knowledge.

5.22 Eligible Inventory

All Eligible Inventory included in the calculation of minimum Working Capital is of good and merchantable quality. As to each item of Inventory that is identified by Borrower as Eligible Inventory in a Compliance Certificate submitted to Administrative Agent, such Inventory is located at one of the locations set forth on Schedule 5.08 or at such other location identified in writing by Borrower to Administrative Agent, or is in transit from one such location to another such location and is not otherwise excluded as ineligible by virtue of one or more of the excluding criteria set forth in the definition of Eligible Inventory.

5.23 Insurance Policies

The properties of the Borrower and its Subsidiaries are insured with financially sound and reputable insurance companies not Affiliates of the Borrower, in such amounts, with such deductibles and covering such risks as are customarily carried by companies engaged in similar businesses and owning similar properties in localities where the Borrower or the applicable Subsidiary operates. Schedule 5.23 lists all material insurance policies of any kind or nature by or on behalf of the Borrower, as well as a summary of the principal terms of such insurance. All such insurance policies, together with any insurance policies obtained by the Borrower after the Third A&R Effective Date are or will be in full force and effect and provide coverage of such risks and in such amounts as is customarily maintained for businesses of the scope and size of the Borrower..

5.24 Employment and Labor Agreements

Schedule 5.24 accurately and completely describes each employment agreement, agreement for the payment of defined compensation, severance or so-called change in control agreement covering executive officers of the Borrower, as well as all collective bargaining agreements or other labor agreements covering any employees of the Borrower or its Subsidiaries.



5.25 OFAC: Anti-Corruption Laws

(a) No Loan Party, nor, to the knowledge of the Loan Parties, any director, officer, employee, agent, affiliate or representative thereof, is an individual or entity that is, or is owned or controlled by any individual or entity that is (i) currently the subject or target of any Sanctions, (ii) included on OFAC's List of Specially Designated Nationals, HMT's Consolidated List of Financial Sanctions Targets and the Investment Ban List, or any similar list enforced by any other relevant sanctions authority, or (iii) located, organized or resident in a Designated Jurisdiction.

(b) The Loan Parties and, to the knowledge of the Borrower, their respective directors, officers, employees, and agents are, and have been in compliance with all applicable laws, rules, regulations and orders regarding Sanctions, and have conducted their businesses in compliance with applicable anti-corruption Laws and have instituted and maintained policies and procedures designed to promote and achieve compliance with such Laws. The Borrower will not, directly or, to the Borrower's knowledge, indirectly, use the proceeds of the Loans, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person to fund any activities or business of or with any Person, or in any country or territory, that, at the time of such funding, is, or whose government is, the subject of Sanctions.

(c) None of the Borrower or any of its Subsidiaries nor, to the knowledge of the Borrower, any director, officer, employee or agent of the Borrower or any of its Subsidiaries has taken any action, directly or indirectly, that would result in a material violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "FCPA") or any other applicable anti-corruption law. No part of the proceeds of the Loans will be used, directly or to the Borrower's knowledge, indirectly, for any payment to any governmental official or employee, political party, official of a political party, candidate for political office, or anyone else acting in an official capacity in violation of the FCPA or any other anti-corruption law. The Borrower and its Subsidiaries are in compliance, in all material respects, with the Act and all other applicable anti-money laundering and counter-terrorist financing laws and regulations.

5.26 EEA Financial Institution

No Loan Party is an EEA Financial Institution.

5.27 Restated Obligations

The Loan Parties confirm, acknowledge, and agree that the aggregate outstanding principal amount of Restated Obligations as of the date hereof is \$14,000,000.

ARTICLE VI  
AFFIRMATIVE COVENANTS

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation hereunder shall remain unpaid or unsatisfied, or any Letter of Credit shall remain outstanding, the Borrower shall, and shall (except in the case of the covenants set forth in Sections 6.01, 6.02, 6.03 and 6.11.) cause each Subsidiary to:

6.01 Financial Statements

Deliver to the Administrative Agent and each Lender, in form and detail satisfactory to the Administrative Agent and the Required Lenders:

(a) as soon as available, but in any event within 120 days after the end of each fiscal year of the Borrower (commencing with the fiscal year ended December 31, 2016), a consolidated balance sheet of the Borrower and its Subsidiaries as at the end of such fiscal year, and the related consolidated statements of income or operations, changes in shareholders' equity, and cash flows for such fiscal year, setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail and prepared in accordance with GAAP, such consolidated statements to be audited and accompanied by a report and opinion of an independent certified public accountant of nationally recognized standing reasonably acceptable to the Required Lenders, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any "going concern" or like qualification or exception or any qualification or exception as to the scope of such audit, and such consolidating statements to be certified by the chief executive officer, chief financial officer, treasurer or controller of the Borrower to the effect that such statements are fairly stated in all material respects when considered in relation to the consolidated financial statements of the Borrower and its Subsidiaries;

(b) as soon as available, but in any event within 45 days after the end of each of the first three fiscal quarters of each fiscal year of the Borrower (commencing with the fiscal quarter ended December 31, 2016), and within 60 days after the end of the fourth fiscal quarter, a consolidated and consolidating balance sheet of the Borrower and its Subsidiaries as at the end of such fiscal quarter, and the related consolidated and consolidating statements of income or operations, changes in shareholders' equity, and cash flows for such fiscal quarter and for the portion of the Borrower's fiscal year then ended, setting forth in each case in comparative form the figures for the corresponding fiscal quarter of the previous fiscal year and the corresponding portion of the previous fiscal year, all in reasonable detail, such consolidated statements to be certified by the chief executive officer, chief financial officer, treasurer or controller of the Borrower as fairly presenting the financial condition, results of operations, shareholders' equity and cash flows of the Borrower and its Subsidiaries in accordance with GAAP, subject only to normal year-end audit adjustments and the absence of footnotes and such consolidating statements to be certified by the chief executive officer, chief financial officer, treasurer or controller of the Borrower to the effect that such statements are fairly stated in all material respects when considered in relation to the consolidated financial statements of the Borrower and its Subsidiaries;

(c) on or before January 30 of each fiscal year of the Borrower, a budget of the Borrower and its Subsidiaries on a consolidated basis for the then current fiscal year, including forecasts prepared by management of the Borrower, in form satisfactory to the Administrative Agent and the Required Lenders, of consolidated balance sheets and statements of income or operations and cash flows of the Borrower and its Subsidiaries on a quarterly basis for the immediately following fiscal year (including the fiscal year in which the Maturity Date for the Term Loans occurs).

(d) As soon as available, but in any event within forty-five (45) days after the end of each quarterly accounting period in each fiscal year of the Borrower and within sixty (60) days after the end of the fourth fiscal quarter, (i) quarterly summary accounts receivable aging report, in such form as Administrative Agent may from time to time reasonably require and (ii) reports detailing such other information as Administrative Agent may from time to time reasonably require. All of the reports listed in forgoing clauses (i) and (ii) shall be in reasonable detail and current through at least the close of business for the immediately preceding quarter and certified by the Chief Executive Officer or the Chief Financial Officer or such other officer of the Borrower as may be acceptable in the sole discretion of Agent.

As to any information contained in materials furnished pursuant to Section 6.02(d), the Borrower shall not be separately required to furnish such information under Section 6.01(a) or (b) above, but the foregoing shall not be in derogation of the obligation of the Borrower to furnish the information and materials described in Sections 6.01(a) and (b) above at the times specified therein.

6.02 Certificates; Other Information

Deliver to the Administrative Agent and each Lender, in form and detail satisfactory to the Administrative Agent and the Required Lenders:

(a) concurrently with the delivery of the financial statements referred to in Sections 6.01(a) and (b), (i) a duly completed Compliance Certificate signed by the chief executive officer, chief financial officer, treasurer or controller of the Borrower, and in the event of any change in generally accepted accounting principles used in the preparation of such financial statements, the Borrower shall also provide, if necessary for the determination of compliance with Section 7.11, a statement of reconciliation conforming such financial statements to GAAP and (ii) a copy of management's discussion and analysis with respect to such financial statements;

(b) promptly after any request by the Administrative Agent or any Lender, copies of any detailed audit reports, management letters or recommendations submitted to the board of directors (or the audit committee of the board of directors) of any Loan Party by independent accountants in connection with the accounts or books of any Loan Party or any of its Subsidiaries, or any audit of any of them;

(c) promptly after the same are available, copies of each annual report, proxy or financial statement or other report or communication sent to the stockholders of the Borrower, and copies of all annual, regular, periodic and special reports and registration statements which the Borrower may file or be required to file with the SEC under Section 13 or 15(d) of the Securities Exchange Act of 1934, or with any national securities exchange, and in any case not otherwise required to be delivered to the Administrative Agent pursuant hereto;

(d) promptly after the furnishing thereof, copies of any statement or report furnished to any holder of debt securities of any Loan Party or of any of its Subsidiaries pursuant to the terms of any indenture, loan or credit or similar agreement and not otherwise required to be furnished to the Lenders pursuant to Section 6.01 or any other clause of this Section 6.02;

(e) as soon as available, but in any event within 30 days after the end of each fiscal year of the Borrower, a report summarizing the insurance coverage (specifying type, amount and carrier) in effect for each Loan Party and its Subsidiaries and containing such additional information as the Administrative Agent, or any Lender through the Administrative Agent, may reasonably specify;

(f) promptly, and in any event within five Business Days after receipt thereof by any Loan Party or any Subsidiary thereof, copies of each notice or other correspondence received from the SEC (or comparable agency in any applicable non-U.S. jurisdiction) concerning any investigation or possible investigation or other inquiry by such agency regarding financial or other operational results of any Loan Party or any Subsidiary thereof;

(g) reserved;

(h) promptly after the assertion or occurrence thereof, notice of any action or proceeding against or of any noncompliance by any Loan Party or any of its Subsidiaries with any Environmental Law or Environmental Permit that could reasonably be expected to have a Material Adverse Effect;

(i) as soon as available, but in any event within 30 days after the end of each fiscal year of the Borrower, an update supplementing Schedules 5.08(c), 5.08(d)(i), 5.08(d)(ii), 5.08(e) and 5.16, containing the information included in such Schedules as may be necessary for such Schedules to be true, accurate and complete in accordance with the applicable representation and warranty hereunder as if made as of the last day of the fiscal year of the Borrower, each such report to be signed by a Responsible Officer of the Borrower and each such update to be in substance reasonably satisfactory to the Administrative Agent;

(j) promptly, such additional information regarding the business, financial, legal or corporate affairs of any Loan Party or any Subsidiary thereof, or compliance with the terms of the Loan Documents, as the Administrative Agent or any Lender may from time to time reasonably request.; and

(k) within five (5) Business Days of request by Agent, a fully executed Authorization to Share Insurance Information in the form of Exhibit F attached hereto.

Documents required to be delivered pursuant to Section 6.01(a) or (b) or Section 6.02(d) (to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date (i) on which the Borrower posts such documents, or provides a link thereto on the Borrower's website on the Internet at the website address listed on Schedule 11.02; or (ii) on which such documents are posted on the Borrower's behalf on an Internet or intranet website, if any, to which each Lender and the Administrative Agent have access (whether a commercial, third-party website or whether sponsored by the Administrative Agent); provided that: (i) the Borrower shall deliver paper copies of such documents to the Administrative Agent or any Lender that requests the Borrower to deliver such paper copies until a written request to cease delivering paper copies is given by the Administrative Agent or such Lender and (ii) the Borrower shall notify the Administrative Agent and each Lender (by telecopier or electronic mail) of the posting of any such documents and provide to the Administrative Agent by electronic mail electronic versions ( i.e., soft copies) of such documents. Notwithstanding anything contained herein, in every instance the Borrower shall be required to provide paper copies of the Compliance Certificates required by Section 6.02(b) to the Administrative Agent. Except for such Compliance Certificates, the Administrative Agent shall have no obligation to request the delivery or to maintain copies of the documents referred to above, and in any event shall have no responsibility to monitor compliance by the Borrower with any such request for delivery, and each Lender shall be solely responsible for requesting delivery to it or maintaining its copies of such documents.

The Borrower hereby acknowledges that (a) the Administrative Agent will make available to the Lenders and the L/C Issuer materials and/or information provided by or on behalf of the Borrower hereunder (collectively, "Borrower Materials") by posting the Borrower Materials on IntraLinks or another similar electronic system (the "Platform") and (b) certain of the Lenders (each, a "Public Lender") may have personnel who do not wish to receive material non-public information with respect to the Borrower or its Affiliates, or the respective securities of any of the foregoing, and who may be engaged in investment and other market-related activities with respect to such Persons' securities. The Borrower hereby agrees that so long as the Borrower is the issuer of any outstanding debt or equity securities that are registered or issued pursuant to a private offering or is actively contemplating issuing any such securities it will use commercially reasonable efforts to identify that portion of the Borrower Materials that may be distributed to the Public Lenders and that (w) all such Borrower Materials shall be clearly and conspicuously marked "PUBLIC" which, at a minimum, shall mean that the word "PUBLIC" shall appear prominently on the first page thereof; (x) by marking Borrower Materials "PUBLIC," the Borrower shall be deemed to have authorized the Administrative Agent, the L/C Issuer and the Lenders to treat such Borrower Materials as not containing any material non-public information (although it may be sensitive and proprietary) with respect to the Borrower or its securities for purposes of United States Federal and state securities laws ( provided, however, that to the extent such Borrower Materials constitute Information, they shall be treated as set forth in Section 11.07 ); (y) all Borrower Materials marked "PUBLIC" are permitted to be made available through a portion of the Platform designated "Public Side Information;" and (z) the Administrative Agent shall be entitled to treat any Borrower Materials that are not marked "PUBLIC" as being suitable only for posting on a portion of the Platform not designated "Public Side Information." Notwithstanding the foregoing, the Borrower shall be under no Obligation to mark any Borrower Materials "PUBLIC".

#### 6.03 Notices

Promptly notify the Administrative Agent and each Lender:

- (a) of the occurrence of any Default;
- (b) of any matter that has resulted or could reasonably be expected to result in a Material Adverse Effect, including (i) breach or non-performance of, or any default under, a Contractual Obligation of the Borrower or any Subsidiary; (ii) any dispute, litigation, investigation, proceeding or suspension between the Borrower or any Subsidiary and any Governmental Authority; or (iii) the commencement of, or any material development in, any litigation or proceeding affecting the Borrower or any Subsidiary, including pursuant to any applicable Environmental Laws;
- (c) of the occurrence of any ERISA Event;
- (d) of any material change in accounting policies or financial reporting practices by any Loan Party or any Subsidiary thereof; and
- (e) of the (i) occurrence of any Disposition of property or assets for which the Borrower is required to make a mandatory prepayment pursuant to Section 2.05(b)(ii), (ii) occurrence of any sale of capital stock or other Equity Interests for which the Borrower is required to make a mandatory prepayment pursuant to Section 2.05(b)(iii), (iii) incurrence or issuance of any Indebtedness for which the Borrower is required to make a mandatory prepayment pursuant to Section 2.05(b)(iv), and (iv) receipt of any Extraordinary Receipt for which the Borrower is required to make a mandatory prepayment pursuant to Section 2.0(b)(v).

Each notice pursuant to Section 6.03 (other than Section 6.03(e) or (f)) shall be accompanied by a statement of a Responsible Officer of the Borrower setting forth details of the occurrence referred to therein and stating what action the Borrower has taken and proposes to take with respect thereto. Each notice pursuant to Section 6.03(a) shall describe with particularity any and all provisions of this Agreement and any other Loan Document that have been breached.

#### 6.04 Payment of Obligations

Pay and discharge as the same shall become due and payable, all its obligations and liabilities, including (a) all tax liabilities, assessments and governmental charges or levies upon it or its properties or assets, unless the same are being contested in good faith by appropriate proceedings diligently conducted and adequate reserves in accordance with GAAP are being maintained by the Borrower or such Subsidiary; (b) all lawful claims which, if unpaid, would by law become a Lien upon its property; and (c) all Indebtedness, as and when due and payable, but subject to any applicable grace periods and subordination provisions contained in any instrument or agreement evidencing such Indebtedness.

6.05 Preservation of Existence, Etc.

(a) Preserve, renew and maintain in full force and effect its legal existence and good standing under the Laws of the jurisdiction of its organization except in a transaction permitted by Section 7.04 or 7.05; (b) take all reasonable action to maintain all rights, privileges, permits, licenses and franchises necessary or desirable in the normal conduct of its business, except to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect; and (c) preserve or renew all of its registered patents, trademarks, trade names and service marks, the non-preservation of which could reasonably be expected to have a Material Adverse Effect.

6.06 Maintenance of Properties

(a) Maintain, preserve and protect all of its material properties and equipment necessary in the operation of its business in good working order and condition, ordinary wear and tear excepted; and (b) make all necessary repairs thereto and renewals and replacements thereof except where the failure to do so could not reasonably be expected to have a Material Adverse Effect.

6.07 Maintenance of Insurance

Maintain with financially sound and reputable insurance companies not Affiliates of the Borrower, insurance with respect to its properties and business against loss or damage of the kinds customarily insured against by Persons engaged in the same or similar business, of such types and in such amounts as are customarily carried under similar circumstances by such other Persons.

6.08 Compliance with Laws

Comply in all material respects with the requirements of all Laws and all orders, writs, injunctions and decrees applicable to it or to its business or property, except in such instances in which (a) such requirement of Law or order, writ, injunction or decree is being contested in good faith by appropriate proceedings diligently conducted; or (b) the failure to comply therewith could not reasonably be expected to have a Material Adverse Effect.

6.09 Books and Records

Maintain proper Books, in which full, true and correct entries in conformity with GAAP consistently applied shall be made of all financial transactions and matters involving the assets and business of the Borrower or such Subsidiary, as the case may be.

6.10 Inspection Rights

Permit representatives and independent contractors of the Administrative Agent and each Lender to visit and inspect any of its properties, to examine its corporate, financial and operating records, and make copies thereof or abstracts therefrom, and to discuss its affairs, finances and accounts with its directors, officers, and independent public accountants, all at the expense of the Borrower and at such reasonable times during normal business hours and as often as may be reasonably desired, upon reasonable advance notice to the Borrower; provided, however, that when an Event of Default exists the Administrative Agent or any Lender (or any of their respective representatives or independent contractors) may do any of the foregoing at the expense of the Borrower at any time during normal business hours and without advance notice; provided, further, that so long as no occurrence of a Default or Event of Default has occurred and is continuing, the Borrower shall only be responsible for the expenses relating to such inspections once per calendar year.

6.11 Use of Proceeds

Use the proceeds of the Revolving Credit Loans for working capital, Permitted Acquisitions and general corporate purposes.

6.12 Covenant to Guarantee Obligations and Give Security

(a) Upon the formation or acquisition of any new direct or indirect Subsidiary (other than any CFC or a Subsidiary that is held directly or indirectly by a CFC) by any Loan Party, then the Borrower shall, at the Borrower's expense:

(i) within 10 days after such formation or acquisition, cause such Subsidiary, and cause each direct and indirect parent of such Subsidiary (if it has not already done so), to duly execute and deliver to the Administrative Agent a guaranty or guaranty supplement, in form and substance reasonably satisfactory to the Administrative Agent, guaranteeing the other Loan Parties' obligations under the Loan Documents,

(ii) within 10 days after such formation or acquisition, furnish to the Administrative Agent a description of the real and personal properties of such Subsidiary, in detail reasonably satisfactory to the Administrative Agent,

(iii) within 30 days after such formation or acquisition, cause such Subsidiary and each direct and indirect parent of such Subsidiary (if it has not already done so) to duly execute and deliver to the Administrative Agent deeds of trust, trust deeds, deeds to secure debt, mortgages, leasehold mortgages, leasehold deeds of trust, Security Agreement Supplements, IP Security Agreement Supplements and other security and pledge agreements, as specified by and in form and substance satisfactory to the Administrative Agent (including delivery of all Pledged Interests in and of such Subsidiary, and other instruments of the type specified in Section 4.01(a)(iii)), securing payment of all the Obligations of such Subsidiary or such parent, as the case may be, under the Loan Documents and constituting Liens on all such real and personal properties,

(iv) within 30 days after such formation or acquisition, cause such Subsidiary and each direct and indirect parent of such Subsidiary (if it has not already done so) to take whatever action (including the recording of mortgages, the filing of Uniform Commercial Code financing statements, the giving of notices and the endorsement of notices on title documents) may be reasonably necessary or advisable in the opinion of the Administrative Agent to vest in the Administrative Agent (or in any representative of the Administrative Agent designated by it) valid and subsisting Liens on the properties purported to be subject to the deeds of trust, trust deeds, deeds to secure debt, mortgages, leasehold mortgages, leasehold deeds of trust, Security Agreement Supplements, IP Security Agreement Supplements and security and pledge agreements delivered pursuant to this Section 6.12,

(v) within 60 days after such formation or acquisition, deliver to the Administrative Agent, upon the request of the Administrative Agent in its sole discretion, a signed copy of a favorable opinion, addressed to the Administrative Agent and the other Secured Parties, of counsel for the Loan Parties reasonably acceptable to the Administrative Agent as to the matters contained in clauses (i), (iii) and (iv) above, and as to such other matters as the Administrative Agent may reasonably request, and

(vi) as promptly as practicable after such formation or acquisition, deliver, upon the request of the Administrative Agent in its sole discretion, to the Administrative Agent with respect to each parcel of real property owned or held by the entity that is the subject of such formation or acquisition title reports, surveys and engineering, soils and other reports, and environmental assessment reports, each in scope, form and substance reasonably satisfactory to the Administrative Agent, provided, however, that to the extent that any Loan Party or any of its Subsidiaries shall have otherwise received any of the foregoing items with respect to such real property, such items shall, promptly after the receipt thereof, be delivered to the Administrative Agent.

(b) Upon the acquisition of any property by any Loan Party, if such property, in the judgment of the Administrative Agent, shall not already be subject to a perfected first priority security interest in favor of the Administrative Agent for the benefit of the Secured Parties, then the Borrower shall, at the Borrower's expense:

(i) within 10 days after such acquisition, furnish to the Administrative Agent a description of the property so acquired in detail reasonably satisfactory to the Administrative Agent,

(ii) within 15 days after the Administrative Agent delivers to the Borrower the appropriate form which may be delivered on the date of or following such acquisition, cause the applicable Loan Party to duly execute and deliver to the Administrative Agent deeds of trust, trust deeds, deeds to secure debt, mortgages, leasehold mortgages, leasehold deeds of trust, Security Agreement Supplements, IP Security Agreement Supplements and other security and pledge agreements, as specified by and in form and substance satisfactory to the Administrative Agent, securing payment of all the Obligations of the applicable Loan Party under the Loan Documents and constituting Liens on all such properties,



(iii) within 30 days after such acquisition, cause the applicable Loan Party to take whatever action (including the recording of mortgages, the filing of Uniform Commercial Code financing statements, the giving of notices and the endorsement of notices on title documents) may be reasonably necessary or advisable in the opinion of the Administrative Agent to vest in the Administrative Agent (or in any representative of the Administrative Agent designated by it) valid and subsisting Liens on such property, enforceable against all third parties,

(iv) within 60 days after such acquisition, deliver to the Administrative Agent, upon the request of the Administrative Agent in its sole discretion, a signed copy of a favorable opinion, addressed to the Administrative Agent and the other Secured Parties, of counsel for the Loan Parties reasonably acceptable to the Administrative Agent as to the matters contained in clauses (ii) and (iii) above and as to such other matters as the Administrative Agent may reasonably request, and

(v) as promptly as practicable after any acquisition of a real property, deliver, upon the request of the Administrative Agent in its sole discretion, to the Administrative Agent with respect to such real property title reports, surveys and engineering, soils and other reports, and environmental assessment reports, each in scope, form and substance reasonably satisfactory to the Administrative Agent, provided, however, that to the extent that any Loan Party or any of its Subsidiaries shall have otherwise received any of the foregoing items with respect to such real property, such items shall, promptly after the receipt thereof, be delivered to the Administrative Agent,

(c) Upon the request of the Administrative Agent following the occurrence and during the continuance of a Default, the Borrower shall, at the Borrower's expense:

(i) within 10 days after such request, furnish to the Administrative Agent a description of the real and personal properties of the Loan Parties and their respective Subsidiaries in detail satisfactory to the Administrative Agent,

(ii) within 15 days after such request, duly execute and deliver, and cause each Loan Party (other than any CFC or a Subsidiary that is held directly or indirectly by a CFC) of the Borrower (if it has not already done so) to duly execute and deliver, to the Administrative Agent deeds of trust, trust deeds, deeds to secure debt, mortgages, leasehold mortgages, leasehold deeds of trust, Security Agreement Supplements, IP Security Agreement Supplements and other security and pledge agreements, as specified by and in form and substance satisfactory to the Administrative Agent (including delivery of all Pledged Equity and Pledged Debt in and of such Subsidiary, and other instruments of the type specified in Section 4.01(a)(iii)), securing payment of all the Obligations of the applicable Loan Party under the Loan Documents and constituting Liens on all such properties,

(iii) within 30 days after such request, take, and cause each Loan Party (other than any CFC or a Subsidiary that is held directly or indirectly by a CFC) of the Borrower to take, whatever action (including the recording of mortgages, the filing of Uniform Commercial Code financing statements, the giving of notices and the endorsement of notices on title documents) may be necessary or advisable in the opinion of the Administrative Agent to vest in the Administrative Agent (or in any representative of the Administrative Agent designated by it) valid and subsisting Liens on the properties purported to be subject to the deeds of trust, trust deeds, deeds to secure debt, mortgages, leasehold mortgages, leasehold deeds of trust, Security Agreement Supplements, IP Security Agreement Supplements and security and pledge agreements delivered pursuant to this Section 6.12, enforceable against all third parties in accordance with their terms,

(iv) within 60 days after such request, deliver to the Administrative Agent, upon the request of the Administrative Agent in its sole discretion, a signed copy of a favorable opinion, addressed to the Administrative Agent and the other Secured Parties, of counsel for the Loan Parties acceptable to the Administrative Agent as to the matters contained in clauses (ii) and (iii) above, and as to such other matters as the Administrative Agent may reasonably request, and

(v) as promptly as practicable after such request, deliver, upon the request of the Administrative Agent in its sole discretion, to the Administrative Agent with respect to each parcel of real property owned or held by the Borrower and its Subsidiaries, title reports, surveys and engineering, soils and other reports, and environmental assessment reports, each in scope, form and substance satisfactory to the Administrative Agent, provided, however, that to the extent that any Loan Party or any of its Subsidiaries shall have otherwise received any of the foregoing items with respect to such real property, such items shall, promptly after the receipt thereof, be delivered to the Administrative Agent.

(d) At any time upon request of the Administrative Agent, promptly execute and deliver any and all further instruments and documents and take all such other action as the Administrative Agent may deem necessary or desirable in obtaining the full benefits of, or (as applicable) in perfecting and preserving the Liens of, such guaranties, deeds of trust, trust deeds, deeds to secure debt, mortgages, leasehold mortgages, leasehold deeds of trust, Security Agreement Supplements, IP Security Agreement Supplements and other security and pledge agreements.

#### 6.13 Compliance with Environmental Laws

Comply, in all material respects, with all applicable Environmental Laws and Environmental Permits; obtain and renew all Environmental Permits necessary for its operations and properties; and to the extent required by any applicable Environmental Laws, conduct any investigation, study, sampling and testing, and undertake any cleanup, removal, remedial or other action necessary to remove and clean up all Hazardous Materials from any of its properties, in accordance with the requirements of all Environmental Laws; provided, however, that neither the Borrower nor any of its Subsidiaries shall be required to undertake any such cleanup, removal, remedial or other action to the extent that its obligation to do so is being contested in good faith and by proper proceedings and appropriate reserves are being maintained with respect to such circumstances in accordance with GAAP.

6.14 Reserved

6.15 Further Assurances

Promptly upon request by the Administrative Agent, or any Lender through the Administrative Agent, (a) correct any material defect or error that may be discovered in any Loan Document or in the execution, acknowledgment, filing or recordation thereof, (b) do, execute, acknowledge, deliver, record, re-record, file, re-file, register and re-register any and all such further acts, deeds, certificates, assurances and other instruments as the Administrative Agent, or any Lender through the Administrative Agent, may reasonably require from time to time in order to (i) carry out more effectively the purposes of the Loan Documents, (ii) to the fullest extent permitted by applicable law, subject any Loan Party's or any of its Subsidiaries' properties, assets, rights or interests to the Liens now or hereafter intended to be covered by any of the Collateral Documents, (iii) perfect and maintain the validity, effectiveness and priority of any of the Collateral Documents and any of the Liens intended to be created thereunder and (iv) assure, convey, grant, assign, transfer, preserve, protect and confirm more effectively unto the Secured Parties the rights granted or now or hereafter intended to be granted to the Secured Parties under any Loan Document or under any other instrument executed in connection with any Loan Document to which any Loan Party or any of its Subsidiaries is or is to be a party, and cause each of its Subsidiaries to do so and (c) deliver a collateral access agreement to the Administrative Agent, in form and substance reasonably satisfactory to it, for any headquarters location where books and records are kept or any other U.S. location where Collateral (including, without limitation, Inventory) having an aggregate fair market value of \$1,000,000 or more is located.

6.16 Reserved

6.17 Reserved

6.18 Material Contracts

Perform and observe all the terms and provisions of each Material Contract to be performed or observed by it, maintain each such Material Contract in full force and effect, enforce each such Material Contract in accordance with its terms, take all such action to such end as may be from time to time requested by the Administrative Agent and, upon request of the Administrative Agent, and cause each of its Subsidiaries to do so, except, in any case, where the failure to do so, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

6.19 Cash Collateral Accounts

Maintain, and cause each of the other Loan Parties to maintain, all Cash Collateral Accounts with Bank of America or another commercial bank located in the United States reasonably acceptable to the Administrative Agent, which, if reasonably requested by the Administrative Agent, deliver an accepted assignment of such accounts to the Administrative Agent for the benefit of the Secured Parties pursuant to the terms of the Security Agreement.

6.20 Anti-Corruption Laws

Conduct its business in compliance with the United States Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2010, and other similar anti-corruption legislation in other jurisdictions, and maintain policies and procedures designed to promote and achieve compliance with such laws.

ARTICLE VII  
NEGATIVE COVENANTS

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation hereunder shall remain unpaid or unsatisfied, or any Letter of Credit shall remain outstanding, the Borrower shall not, nor shall it permit any Subsidiary to, directly or indirectly:

7.01 Liens, Etc.

Create, incur, assume or suffer to exist, any mortgage, lien, charge or encumbrance on, or security interest in, or pledge of, or conditional sale or other title retention agreement (including any Capital Lease) with respect to, any real or personal property (tangible or intangible, now existing or hereafter acquired)(each being a “Lien”), including but not limited to the Accounts and Inventory, nor will the Borrower nor any Subsidiary make the foregoing negative covenant in favor of any other Person except the following (each being a “Permitted Lien”):

(a) Liens for taxes not yet delinquent or being contested in good faith; mechanics’, workmen’s, materialmen’s or other like liens arising in the ordinary course of business in respect of obligations which are not yet due or which are being contested in good faith (as to which adequate reserves have been established on the Borrower’s books to the extent required by GAAP) and which were not incurred in connection with the purchase of property, borrowing of money or the obtaining of credit and which do not detract from the value of the properties or assets of the Borrower and its Subsidiaries or affect the use thereof in the operation of their business;

(b) The existing Liens referred to in Schedule 7.01;

(c) Purchase money mortgages, liens and other security interests, including Capital Leases, created in respect of property acquired by the Borrower and/or any of its Subsidiaries after the date hereof or existing in respect of property so acquired prior to the date hereof, provided that (i) each such lien shall at all times be confined solely to the item of property so acquired, and (ii) the aggregate principal amount of indebtedness secured by all such liens shall at no time exceed \$1,000,000;

(d) Easements, rights-of-way, restrictions and other similar encumbrances incurred in the ordinary course of business which, in the aggregate, do not materially detract from the value of the property subject thereto or interfere with the ordinary conduct of the businesses of the Borrower;

(e) Liens arising solely by virtue of any contractual, statutory or common law provision relating to banker's liens, rights of set-off or similar rights and remedies as to deposit accounts or other funds maintained with any financial institution;

(f) Liens in connection with operating leases and granted to secure obligations with respect to "off balance sheet" or "synthetic" leases (i.e., leases where for tax purposes the lessee is treated as the owner of the leased property but for GAAP purposes the lease is treated as an operating lease and the lessor is treated as the owner of the leased property);

(g) Liens consisting of security deposits securing the Borrower's and/or any Subsidiary's obligations under real property leases;

(h) Any Lien securing Indebtedness to the Lenders;

(i) Deposits or pledges made in connection with, or to secure payment of, worker's compensation, unemployment insurance, old age pensions or social security;

(j) Liens arising by operation of law or under rental agreements made in the ordinary course of business to secure landlords, lessors or renters under leases and confined to the premises or property rented;

(k) Liens acquired in connection with the consummation of Permitted Acquisitions subject to Section 7.02(g); and

(l) Liens in favor of any bank or other financial institution solely against the Borrower's and/or any Subsidiary's deposit account(s) with such bank or other financial institution securing such bank's or other financial institution's obligation to guarantee the Borrower's and/or its Subsidiaries' promissory notes issued in connection with a Permitted Acquisition.

#### 7.02 Indebtedness

Create, incur, assume or become or remain liable in respect of any Indebtedness, except:

(a) Indebtedness to the Lenders hereunder;

(b) Liabilities of the Borrower and/or its Subsidiaries (other than for borrowed money) incurred in the ordinary course of its business and in accordance with customary trade practices;

(c) Existing Indebtedness, together with all accrued and unpaid interest thereon, of the Borrower and/or any Subsidiary referred to in Schedule 7.02 attached hereto, and refinancings thereof in an amount not more than the greater of (i) the respective unpaid principal amounts thereof or (ii) the respective principal amounts available to be drawn thereunder on the date hereof, in each case as specified in such schedule, together with all accrued and unpaid interest thereon;

(d) Indebtedness of the Borrower and/or any Subsidiary secured as permitted by, and subject to the proviso to, subparagraph (c) of Section 7.02;

(e) Unsecured Indebtedness incurred or assumed in connection with (i) any Permitted Acquisition consummated pursuant to Section 7.03(g)(A) hereof in an amount not to exceed seventy-five percent (75%) of the purchase price of such Permitted Acquisition (excluding as Indebtedness incurred or assumed for the purpose of this computation, any promissory notes issued in connection with and included in the payment of the purchase price of any such Permitted Acquisition) and (ii) any Permitted Acquisition consummated pursuant to Section 7.03(g)(B) hereof;

(f) Indebtedness in respect of promissory notes issued in connection with any Permitted Acquisition and secured as permitted by Section 7.02;

(g) Other secured Indebtedness incurred or assumed in connection with any Permitted Acquisition consummated pursuant to (i) Section 7.3(g)(A) in an aggregate principal amount at any time outstanding not to exceed \$500,000 and (ii) Section 7.03(g) hereof;

(h) Other unsecured Indebtedness not to exceed \$100,000; and

(i) Indebtedness in respect of (i) taxes, assessments, governmental charges or levies and claims for labor, materials and supplies to the extent that payment thereof shall not at the time be required to be made or is being contested, (ii) judgments or awards which have been in force for less than the applicable appeal period so long as execution is not levied thereunder or in respect of which the Borrower or any Subsidiary shall in good faith be prosecuting an appeal or proceedings for review in a manner reasonably satisfactory to the Administrative Agent and in respect of which a stay of execution shall have been obtained pending such appeal or review and for which adequate reserves have been established in accordance with, and to the extent required by, GAAP, and (iii) endorsements made in connection with the deposit of items for credit or collection in the ordinary course of business.

7.03 Investments. Make or hold any Investments, except:

(a) Investments held by the Borrower and its Subsidiaries in the form of Cash Equivalents;

(b) advances to officers, directors and employees of the Borrower and Subsidiaries in an aggregate amount not to exceed \$500,000 at any time outstanding, for travel, entertainment, relocation and analogous ordinary business purposes;

- (c) Investments by the Borrower and its Subsidiaries in their respective Subsidiaries outstanding on the date hereof;
- (d) Investments consisting of extensions of credit in the nature of accounts receivable or notes receivable arising from the grant of trade credit in the ordinary course of business, and Investments received in satisfaction or partial satisfaction thereof from financially troubled account debtors to the extent reasonably necessary in order to prevent or limit loss;
- (e) Guarantees permitted by Section 7.02;
- (f) Investments existing on the date hereof (other than those referred to in Section 7.03(c)(i)) and set forth on Schedule 5.08(e);
- (g) acquire or enter into any agreement (other than purchases of equipment or inventory from any Person in the ordinary course of business) requiring the acquisition of all, or substantially all, of the assets or stock or other equity interests of any Person provided such acquisition (whether by acquisition, merger or otherwise) is to be consummated by (i) the Borrower or (ii) a Domestic Subsidiary, provided, that such Domestic Subsidiary is or becomes a Loan Party provided each of the following conditions precedent has been satisfied:

(A) (1) The purchase price paid by the Borrower and/or its Subsidiaries in connection with Permitted Acquisitions consummated under this Section 7.03(g)(A) is payable (i) solely in shares of capital stock of the Borrower in an amount not to exceed \$10,000,000 in connection with any single Permitted Acquisition (such capital stock valuation shall be the closing price of the Borrower's common stock on the NASDAQ National Market on the date such transaction is approved by the Borrower's board of directors), (ii) solely in cash, (iii) solely by issuance of one or more promissory notes or (iv) some combination of the foregoing, provided, however, that except in the case of clause (i) above, the amount of cash consideration plus promissory notes plus shares of capital stock of the Borrower does not exceed \$6,000,000 in connection with any single Permitted Acquisition;

(2) the Borrower notifies the Administrative Agent in writing of all proposed Permitted Acquisitions under this Section 7.03(g)(A) no less than thirty (30) days prior to the anticipated closing date; and (3) the Borrower notifies the Administrative Agent as soon as practicable following any material changes in the business terms or projected impact of any Permitted Acquisition which has previously been disclosed to the Administrative Agent.

(B) Except in connection with Permitted Acquisitions consummated in accordance with Section 7.03(g)(A), the Borrower and/or its Subsidiaries will only enter into agreements to acquire, and shall only be permitted to acquire, all or substantially all of the assets or stock or other equity interests of any Person (whether by acquisition, merger or otherwise) with the prior written consent of the Required Lenders to be provided in their reasonable discretion and subject to satisfaction of each of the following conditions:

- (i) The Lenders shall have received written notice of such acquisition and the basic terms thereof, as soon as reasonably practicable, but in any event not less than thirty (30) days prior to the anticipated consummation of the acquisition;
- (ii) The assets to be acquired are employed or, if such acquisition is structured as purchase of stock or other equity interests, the Person so acquired conducts its business in an industry which is the same as that of the Borrower and the Required Lenders are satisfied as to the foregoing;
- (iii) At the time of consummation of such acquisition, no Default and no Event of Default exists, or would be caused by such consummation and the Lenders are satisfied as to the foregoing;
- (iv) At least five (5) Business Days prior to the consummation of any such acquisition, the Borrower shall have delivered to the Lenders a certificate, signed by the Chief Executive Officer or Chief Financial Officer of the Borrower, certifying that the Borrower has conducted or caused to be conducted all due diligence deemed reasonably necessary for the proposed acquisition, and that the results of such due diligence are deemed satisfactory by the officer of the Borrower executing such certificate;
- (v) The acquisition is not hostile and has been approved by the governing body of the Person being acquired or of the Person whose assets are being acquired;
- (vi) No less than thirty (30) days prior to the anticipated consummation of the acquisition, the Borrower shall deliver to the Lenders, among such other financial information and reports as may be required by the Lenders, revised financial projections, income statements and balance sheets setting forth the effect of the acquisition and demonstrating to the satisfaction of the Required Lenders (in their sole discretion) that the Borrower will, on a going forward basis, be in compliance with all covenants (including the financial covenants contained herein) set forth in this Agreement, and further demonstrating that the proposed acquisition will, prior to the end of the second fiscal quarter of the Borrower immediately succeeding the fiscal quarter during which any such acquisition is consummated, increase the Borrower's Adjusted EBITDA, after giving effect to all additional interest and Indebtedness related to such acquisition (including any Indebtedness incurred under this Agreement), as well as the relevant income statement effects deemed applicable by the Required Lenders and all adjustments to historical performance approved by the Required Lenders, all in the Required Lenders' sole discretion; and
- (vii) The Administrative Agent (at the direction of the Required Lenders) shall not have issued notice to the Borrower that, in the Required Lenders' reasonable discretion, it or they have determined that a proposed acquisition is not a Permitted Acquisition, any such notice to be delivered to the Borrower within 15 days of the last to occur of (x) receipt of written notice from the Borrower required by paragraph (a) of this Section 7.03(g)(B) and such notice to set forth, in reasonable detail, the basic for such determination by the Lenders and (y) the last of the materials required to be delivered under Section 7.03(g)(B).



Each acquisition consummated in accordance with the provisions of Section 7.03(g)(A) and Section 7.03(g)(B) shall be referred to as a “ Permitted Acquisition ”.

(h) other Investments not to exceed \$500,000 in the aggregate in any fiscal year;

(i) (1) Investments in Loan Parties in the form of capital contributions, dividends or intercompany loans, and (2) Investments in the form of capital contributions, dividends or intercompany loans in Subsidiaries that are not Loan Parties up to an aggregate amount outstanding at any time not to exceed \$2,500,000, so long as the same are reasonably advisable or necessary;

(j) Indemnification agreements in connection with contractual arrangements entered into in the ordinary course of business.

7.04 Fundamental Changes. Merge, dissolve, liquidate, consolidate with or into another Person, or Dispose of (whether in one transaction or in a series of transactions) all or substantially all of its assets (whether now owned or hereafter acquired) to or in favor of any Person, except that, so long as no Default exists or would result therefrom:

(a) any Subsidiary may merge with (i) the Borrower, provided that the Borrower shall be the continuing or surviving Person, or (ii) any one or more other Subsidiaries, provided that when any Loan Party is merging with another Subsidiary, such Loan Party shall be the continuing or surviving Person;

(b) any Loan Party may Dispose of all or substantially all of its assets (upon voluntary liquidation or otherwise) to the Borrower or to another Loan Party; and

(c) any Subsidiary that is not a Loan Party may dispose of all or substantially all its assets (including any Disposition that is in the nature of a liquidation) to (i) another Subsidiary that is not a Loan Party or (ii) to a Loan Party.

7.05 Sale of Assets

Sell, lease or otherwise dispose of any of its properties or assets, except for (a) sales, leases or other dispositions in the ordinary course of business, (b) sales, leases or other dispositions of obsolete or unusable property or assets (it being understood that customer lists, contracts, inventory and accounts receivable are excluded from this exception), (c) sales, leases or other dispositions of duplicative property or other assets acquired in connection with Permitted Acquisitions, and (d) sales, leases and other dispositions of other property and assets in an aggregate amount not to exceed \$2,000,000 per fiscal year for the Borrower and all of its Subsidiaries.

7.06 Restricted Payments

Declare or make, directly or indirectly, any Restricted Payment, or incur any obligation (contingent or otherwise) to do so, or issue or sell any Equity Interests or accept any capital contributions, except that, so long as no Default or Event of Default shall have occurred and be continuing at the time of any action described below or would result therefrom:

(a) each Subsidiary may make Restricted Payments to the Borrower, any Subsidiaries of the Borrower that are Guarantors and any other Person that owns a direct Equity Interest in such Subsidiary, ratably according to their respective holdings of the type of Equity Interest in respect of which such Restricted Payment is being made;

(b) the Borrower and each Subsidiary may declare and make dividend payments or other distributions payable solely in the common stock or other common Equity Interests of such Person; and

(c) except to the extent the Net Cash Proceeds thereof are required to be applied to the prepayment of the Loans pursuant to Section 2.05(b)(iii), the Borrower and each Subsidiary may purchase, redeem or otherwise acquire its common Equity Interests with the proceeds received from the substantially concurrent issue of new common Equity Interests.

7.07 Change in Nature of Business

Engage in any material line of business substantially different from those lines of business conducted by the Borrower and its Subsidiaries on the date hereof or any business substantially related or incidental thereto.

7.08 Transactions with Affiliates

Enter into any transaction of any kind with any Affiliate of the Borrower, whether or not in the ordinary course of business, other than on fair and reasonable terms substantially as favorable to the Borrower or such Subsidiary as would be obtainable by the Borrower or such Subsidiary at the time in a comparable arm's length transaction with a Person other than an Affiliate; provided that the foregoing restriction shall not apply to transactions between or among the Loan Parties.

7.09 Burdensome Agreements

Enter into or permit to exist any Contractual Obligation (other than this Agreement or any other Loan Document) that (a) limits the ability (i) of any Subsidiary to make Restricted Payments to the Borrower or any Guarantor or to otherwise transfer property to or invest in the Borrower or any Guarantor, except for any agreement in effect (A) on the date hereof and set forth on Schedule 7.09 or (B) at the time any Subsidiary becomes a Subsidiary of the Borrower, so long as such agreement was not entered into solely in contemplation of such Person becoming a Subsidiary of the Borrower, (ii) of any Subsidiary to Guarantee the Indebtedness of the Borrower or (iii) of the Borrower or any Subsidiary to create, incur, assume or suffer to exist Liens on property of such Person; provided, however, that this clause (iii) shall not prohibit any negative pledge incurred or provided in favor of any holder of Indebtedness permitted under Section 7.02(i) solely to the extent any such negative pledge relates to the property financed by or the subject of such Indebtedness; or (b) requires the grant of a Lien to secure an obligation of such Person if a Lien is granted to secure another obligation of such Person.

7.10 Use of Proceeds

Use the proceeds of any Credit Extension, whether directly or indirectly, and whether immediately, incidentally or ultimately, to purchase or carry margin stock (within the meaning of Regulation U of the FRB) or to extend credit to others for the purpose of purchasing or carrying margin stock or to refund indebtedness originally incurred for such purpose.

7.11 Financial Covenants

(a) Maximum Leverage Ratio. As of the last day of any fiscal quarter, the ratio of (i) Total Funded Debt of the Borrower and its Subsidiaries as of the last day of such fiscal quarter, to (ii) the Borrower's and its Subsidiaries' consolidated Adjusted EBITDA for the period of four consecutive fiscal quarters ending on the last day of such fiscal quarter to be more than 2.50:1.00.

(b) Minimum Fixed Charge Coverage Ratio. As of the last day of any fiscal quarter, commencing with the fiscal quarter ending on March 31, 2017, and the last day of each fiscal quarter thereafter, the ratio of (i) consolidated Adjusted EBITDA of the Borrower and its Subsidiaries for the four-quarter period ending on the last day of such fiscal quarter, minus (x) aggregate cash capital expenditures, minus (y) cash taxes paid, each of (x) and (y) for the four-quarter period ending on the last day such fiscal quarter, to (ii) the current portion of Funded Debt other than the Total Revolving Credit Outstandings, as of the last day of such fiscal quarter, plus (without duplication) Interest Expense during such trailing four (4) fiscal quarters, to be less than 1.25:1.00.

(c) Minimum Working Capital.

(1) As of the last day of any fiscal quarter, permit their Working Capital to be less than the aggregate outstanding principal balance of the sum of (i) the aggregate outstanding principal amount of the Term Loan plus (ii) the aggregate outstanding amount of the Revolving Credit Loans;

(2) For any Subsidiary whose Eligible Receivables and Eligible Inventory exceed \$1,000,000 in the calculation of minimum Working Capital pursuant to Section 7.3 hereof, the Administrative Agent shall have received the following with respect to such Subsidiary:

(i) satisfactory lien, tax and judgment searches confirming the absence of any liens, claims, charges or encumbrances of any nature on any Accounts of such Subsidiary; and

(ii) certified copies of the charter documents and by-laws of each such Subsidiary, together with certificates of appropriate governmental authorities as to the corporate good standing of such Subsidiaries (to the extent such documents and certificates are available in the applicable jurisdiction).

7.12 Reserved

7.13 Amendments of Organization Documents

Amend any of its Organization Documents in any material respect in a manner that is adverse to the rights or remedies of the Administrative Agent or the Lenders, without the prior written consent of the Administrative Agent (not to be unreasonably withheld).

7.14 Accounting Changes

Make any change in (a) accounting policies or reporting practices, except as required by GAAP, or (b) fiscal year.

7.15 Prepayments, Etc. of Indebtedness

Prepay, redeem, purchase, defease or otherwise satisfy prior to the scheduled maturity thereof in any manner, or make any payment in violation of any subordination terms of, any Indebtedness, except (a) the prepayment of the Credit Extensions in accordance with the terms of this Agreement and (b) regularly scheduled or required repayments or redemptions of Indebtedness set forth in Schedule 7.02 and refinancings and refundings of such Indebtedness in compliance with Section 7.02(g).

7.16 Sanctions

Directly or indirectly, use the proceeds of any Credit Extension, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other individual or entity, to fund any activities of or business with any individual or entity, or in any Designated Jurisdiction, that, at the time of such funding, is the subject of Sanctions, or in any other manner that will result in a violation by any individual or entity (including any individual or entity participating in the transaction, whether as Lender, Arranger, Administrative Agent, L/C Issuer, or otherwise) of Sanctions.

7.17 Anti-Corruption Laws

Directly or indirectly use the proceeds of any Credit Extension for any purpose which would breach the United States Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2010, and other similar anti-corruption legislation in other jurisdictions.

ARTICLE VIII  
EVENTS OF DEFAULT AND REMEDIES

8.01 Events of Default

Any of the following shall constitute an Event of Default:

(a) Non-Payment. The Borrower or any other Loan Party fails to (i) pay when and as required to be paid herein, any amount of principal of any Loan or any L/C Obligation or deposit any funds as Cash Collateral in respect of L/C Obligations, or (ii) pay within three days after the same becomes due, any interest on any Loan or on any L/C Obligation, or any fee due hereunder, or (iii) pay within five days after the same becomes due, any other amount payable hereunder or under any other Loan Document; or

(b) Specific Covenants. (i) The Borrower fails to perform or observe any term, covenant or agreement contained in any of Section 6.01, 6.02, 6.03, 6.05, 6.10, 6.11, 6.12, 6.14, 6.17, 6.18 or Article VII, (ii) any of the Guarantors fails to perform or observe any term, covenant or agreement contained in the Guaranty or (iii) any of the Loan Parties fails to perform or observe any term, covenant or agreement contained in Section 4 of the Security Agreement; or

(c) Other Defaults. Any Loan Party fails to perform or observe any other covenant or agreement (not specified in Section 8.01(a) or (b) above) contained in any Loan Document on its part to be performed or observed and such failure continues for 30 days; or

(d) Representations and Warranties. Any representation, warranty, certification or statement of fact made or deemed made by or on behalf of the Borrower or any other Loan Party herein, in any other Loan Document, or in any document delivered in connection herewith or therewith shall be incorrect or misleading when made or deemed made; or

(e) Cross-Default. (i) Any Loan Party or any Subsidiary thereof (A) fails to make any payment when due after giving effect to any applicable grace period (whether by scheduled maturity, required prepayment, acceleration, demand, or otherwise) in respect of any Indebtedness or Guarantee (other than Indebtedness hereunder and Indebtedness under Swap Contracts) having an aggregate principal amount (including undrawn committed or available amounts and including amounts owing to all creditors under any combined or syndicated credit arrangement) of more than the Threshold Amount, or (B) fails to observe or perform any other agreement or condition relating to any such Indebtedness or Guarantee or contained in any instrument or agreement evidencing, securing or relating thereto, after giving effect to any applicable grace period, or any other event occurs, the effect of which default or other event is to cause, or to permit the holder or holders of such Indebtedness or the beneficiary or beneficiaries of such Guarantee (or a trustee or agent on behalf of such holder or holders or beneficiary or beneficiaries) to cause, with the giving of notice if required, such Indebtedness to be demanded or to become due or to be repurchased, prepaid, defeased or redeemed (automatically or otherwise), or an offer to repurchase, prepay, defease or redeem such Indebtedness to be made, prior to its stated maturity, or such Guarantee to become payable or cash collateral in respect thereof to be demanded; or (ii) there occurs under any Swap Contract an Early Termination Date (as defined in such Swap Contract) resulting from (A) any event of default under such Swap Contract as to which a Loan Party or any Subsidiary thereof is the Defaulting Party (as defined in such Swap Contract) or (B) any Termination Event (as so defined) under such Swap Contract as to which a Loan Party or any Subsidiary thereof is an Affected Party (as so defined) and, in either event, the Swap Termination Value owed by such Loan Party or such Subsidiary as a result thereof is greater than the Threshold Amount; or

(f) Insolvency Proceedings, Etc. Any Loan Party or any Subsidiary thereof institutes or consents to the institution of any proceeding under any Debtor Relief Law, or makes an assignment for the benefit of creditors; or applies for or consents to the appointment of any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer for it or for all or any material part of its property; or any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer is appointed without the application or consent of such Person and the appointment continues undischarged or unstayed for 60 calendar days; or any proceeding under any Debtor Relief Law relating to any such Person or to all or any material part of its property is instituted without the consent of such Person and continues undismissed or unstayed for 60 calendar days, or an order for relief is entered in any such proceeding; or

(g) Inability to Pay Debts; Attachment. (i) Any Loan Party or any Subsidiary thereof becomes unable or admits in writing its inability or fails generally to pay its debts as they become due, or (ii) any writ or warrant of attachment or execution or similar process is issued or levied against all or any material part of the property of any such Person and is not released, vacated or fully bonded within 30 days after its issue or levy; or

(h) Judgments. There is entered against any Loan Party or any Subsidiary thereof (i) one or more final judgments or orders that have, or could reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect and, in either case, (A) enforcement proceedings are commenced by any creditor upon such judgment or order, or (B) there is a period of 60 consecutive days during which a stay of enforcement of such judgment, by reason of a pending appeal or otherwise, is not in effect or such judgment has not been discharged; or

(i) ERISA. (i) An ERISA Event occurs with respect to a Pension Plan or Multiemployer Plan which has resulted or could reasonably be expected to result in liability of the Borrower under Title IV of ERISA to the Pension Plan, Multiemployer Plan or the PBGC in an aggregate amount in excess of the Threshold Amount, or (ii) the Borrower or any ERISA Affiliate fails to pay when due, after the expiration of any applicable grace period, any installment payment with respect to its withdrawal liability under Section 4201 of ERISA under a Multiemployer Plan in an aggregate amount in excess of the Threshold Amount; or

(j) Invalidity of Loan Documents. Any provision of any Loan Document, at any time after its execution and delivery and for any reason other than as expressly permitted hereunder or thereunder or satisfaction in full of all the Obligations, ceases to be in full force and effect; or any Loan Party or any other Person contests in any manner the validity or enforceability of any provision of any Loan Document; or any Loan Party denies that it has any or further liability or obligation under any provision of any Loan Document, or purports to revoke, terminate or rescind any provision of any Loan Document; or

(k) Change of Control. There occurs any Change of Control; or

(l) Collateral Documents. Any Collateral Document after delivery thereof pursuant to Section 4.01 or 6.12 shall for any reason (other than pursuant to the terms thereof) cease to create a valid and perfected first priority Lien (subject to Liens permitted by Section 7.01) on the Collateral purported to be covered thereby, other than if such failure of perfection is due to the Administrative Agent's failure to file properly or properly file any applicable continuations; or

(m) The Borrower is enjoined, restrained, or in any material way prevented by the order of any Governmental Authority from conducting all, or any material part of, its business and such order is not stayed or revoked within five (5) days.

8.02 Remedies upon Event of Default. If any Event of Default occurs and is continuing, the Administrative Agent shall, at the request of, or may, with the consent of, the Required Lenders, take any or all of the following actions:

(a) declare the commitment of each Lender to make Loans and any obligation of the L/C Issuer to make L/C Credit Extensions to be terminated, whereupon such commitments and obligation shall be terminated;

(b) declare the unpaid principal amount of all outstanding Loans, all interest accrued and unpaid thereon, and all other amounts owing or payable hereunder or under any other Loan Document to be immediately due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived by the Borrower;

(c) require that the Borrower Cash Collateralize the L/C Obligations (in an amount equal to the then Outstanding Amount thereof); and

(d) exercise on behalf of itself, the Lenders and the L/C Issuer all rights and remedies available to it, the Lenders and the L/C Issuer under the Loan Documents;

provided, however, that upon the occurrence of an actual or deemed entry of an order for relief with respect to the Borrower under the Bankruptcy Code of the United States, the obligation of each Lender to make Loans and any obligation of the L/C Issuer to make L/C Credit Extensions shall automatically terminate, the unpaid principal amount of all outstanding Loans and all interest and other amounts as aforesaid shall automatically become due and payable, and the obligation of the Borrower to Cash Collateralize the L/C Obligations as aforesaid shall automatically become effective, in each case without further act of the Administrative Agent or any Lender.

8.03 Application of Funds. After the exercise of remedies provided for in Section 8.02 (or after the Loans have automatically become immediately due and payable and the L/C Obligations have automatically been required to be Cash Collateralized as set forth in the proviso to Section 8.02), any amounts received on account of the Obligations shall be applied by the Administrative Agent in the following order:

First, to payment of that portion of the Obligations constituting fees, indemnities, expenses and other amounts (including fees, charges and disbursements of counsel to the Administrative Agent and amounts payable under Article III) payable to the Administrative Agent in its capacity as such;

Second, to payment of that portion of the Obligations constituting fees, indemnities and other amounts (other than principal, interest and Letter of Credit Fees) payable to the Lenders and the L/C Issuer (including fees, charges and disbursements of counsel to the respective Lenders and the L/C Issuer arising under the Loan Documents and amounts payable under Article III), ratably among them in proportion to the respective amounts described in this clause Second payable to them;

Third, to payment of that portion of the Obligations constituting accrued and unpaid Letter of Credit Fees and interest on the Loans, L/C Borrowings and other Obligations arising under the Loan Documents, ratably among the Lenders and the L/C Issuer in proportion to the respective amounts described in this clause Third payable to them;

Fourth, to payment of that portion of the Obligations constituting unpaid principal of the Loans, L/C Borrowings and Obligations then owing under Secured Hedge Agreements and Secured Cash Management Agreements, ratably among the Lenders, the L/C Issuer, the Hedge Banks and the Cash Management Banks in proportion to the respective amounts described in this clause Fourth held by them;

Fifth, to the Administrative Agent for the account of the L/C Issuer, to Cash Collateralize that portion of L/C Obligations comprised of the aggregate undrawn amount of Letters of Credit; and

Last, the balance, if any, after all of the Obligations have been indefeasibly paid in full, to the Borrower or as otherwise required by Law.

Subject to Section 2.03(c), amounts used to Cash Collateralize the aggregate undrawn amount of Letters of Credit pursuant to clause Fifth above shall be applied to satisfy drawings under such Letters of Credit as they occur. If any amount remains on deposit as Cash Collateral after all Letters of Credit have either been fully drawn or expired, such remaining amount shall be applied to the other Obligations, if any, in the order set forth above.

Notwithstanding the foregoing, Obligations arising under Secured Cash Management Agreements and Secured Hedge Agreements shall be excluded from the application described above if the Administrative Agent has not received written notice thereof, together with such supporting documentation as the Administrative Agent may request, from the applicable Cash Management Bank or Hedge Bank, as the case may be. Each Cash Management Bank or Hedge Bank not a party to the Credit Agreement that has given the notice contemplated by the preceding sentence shall, by such notice, be deemed to have acknowledged and accepted the appointment of the Administrative Agent pursuant to the terms of Article IX hereof for itself and its Affiliates as if a "Lender" party hereto.



ARTICLE IX  
ADMINISTRATIVE AGENT

9.01 Appointment and Authority. (a) Each of the Lenders and the L/C Issuer hereby irrevocably appoints Bank of America to act on its behalf as the Administrative Agent hereunder and under the other Loan Documents and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. The provisions of this Article are solely for the benefit of the Administrative Agent, the Lenders and the L/C Issuer, and neither the Borrower nor any other Loan Party shall have rights as a third party beneficiary of any of such provisions.

(b) The Administrative Agent shall also act as the “collateral agent” under the Loan Documents, and each of the Lenders (including in its capacities as a potential Hedge Bank and a potential Cash Management Bank) and the L/C Issuer hereby irrevocably appoints and authorizes the Administrative Agent to act as the agent of such Lender and the L/C Issuer for purposes of acquiring, holding and enforcing any and all Liens on Collateral granted by any of the Loan Parties to secure any of the Obligations, together with such powers and discretion as are reasonably incidental thereto. In this connection, the Administrative Agent, as “collateral agent” and any co-agents, sub-agents and attorneys-in-fact appointed by the Administrative Agent pursuant to Section 9.05 for purposes of holding or enforcing any Lien on the Collateral (or any portion thereof) granted under the Collateral Documents, or for exercising any rights and remedies thereunder at the direction of the Administrative Agent, shall be entitled to the benefits of all provisions of this Article IX and Article XI (including Section 11.04(c)), as though such co-agents, sub-agents and attorneys-in-fact were the “collateral agent” under the Loan Documents) as if set forth in full herein with respect thereto.

(c) It is understood and agreed that the use of the term “agent” herein or in any other Loan Documents (or any similar term) with reference to the Administrative Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable Law. Instead such term is used as a matter of market custom, and is intended to create or reflect only an administrative relationship between contracting parties.

9.02 Rights as a Lender. The Person serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Administrative Agent and the term “Lender” or “Lenders” shall, unless otherwise expressly indicated or unless the context otherwise requires, include the Person serving as the Administrative Agent hereunder in its individual capacity. Such Person and its Affiliates may accept deposits from, lend money to, act as the financial advisor or in any other advisory capacity for and generally engage in any kind of business with the Borrower or any Subsidiary or other Affiliate thereof as if such Person were not the Administrative Agent hereunder and without any duty to account therefor to the Lenders.

9.03 Exculpatory Provisions. The Administrative Agent shall not have any duties or obligations except those expressly set forth herein and in the other Loan Documents. Without limiting the generality of the foregoing, the Administrative Agent:

(a) shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing;

(b) shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that the Administrative Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be expressly provided for herein or in the other Loan Documents), provided that the Administrative Agent shall not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Administrative Agent to liability or that is contrary to any Loan Document or applicable law; and

(c) shall not, except as expressly set forth herein and in the other Loan Documents, have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to the Borrower or any of its Affiliates that is communicated to or obtained by the Person serving as the Administrative Agent or any of its Affiliates in any capacity.

(d) The Administrative Agent shall not be liable for any action taken or not taken by it (i) with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the circumstances as provided in Sections 11.01 and 8.02) or (ii) in the absence of its own gross negligence or willful misconduct. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until notice describing such Default is given to the Administrative Agent by the Borrower, a Lender or the L/C Issuer.

(e) The Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document, or the creation, perfection or priority of any Lien purported to be created by the Collateral Documents, (v) the value or the sufficiency of any Collateral, or (vi) the satisfaction of any condition set forth in Article IV or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent.

9.04 Reliance by Administrative Agent. The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Loan, or the issuance of a Letter of Credit, that by its terms must be fulfilled to the satisfaction of a Lender or the L/C Issuer, the Administrative Agent may presume that such condition is satisfactory to such Lender or the L/C Issuer unless the Administrative Agent shall have received notice to the contrary from such Lender or the L/C Issuer prior to the making of such Loan or the issuance of such Letter of Credit. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrower), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

9.05 Delegation of Duties. The Administrative Agent may perform any and all of its duties and exercise its rights and powers hereunder or under any other Loan Document by or through any one or more sub-agents appointed by the Administrative Agent. The Administrative Agent and any such sub-agent may perform any and all of its duties and exercise its rights and powers by or through their respective Related Parties. The exculpatory provisions of this Article shall apply to any such sub-agent and to the Related Parties of the Administrative Agent and any such sub-agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as Administrative Agent.

9.06 Resignation of Administrative Agent. The Administrative Agent may at any time give notice of its resignation to the Lenders, the L/C Issuer and the Borrower. Upon receipt of any such notice of resignation, the Required Lenders shall have the right, in consultation with the Borrower, to appoint a successor, which shall be a bank with an office in the United States, or an Affiliate of any such bank with an office in the United States. If no such successor shall have been so appointed by the Required Lenders and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its resignation, then the retiring Administrative Agent may on behalf of the Lenders and the L/C Issuer, appoint a successor Administrative Agent meeting the qualifications set forth above; provided that if the Administrative Agent shall notify the Borrower and the Lenders that no qualifying Person has accepted such appointment, then such resignation shall nonetheless become effective in accordance with such notice and (a) the retiring Administrative Agent shall be discharged from its duties and obligations hereunder and under the other Loan Documents (except that in the case of any collateral security held by the Administrative Agent on behalf of the Lenders or the L/C Issuer under any of the Loan Documents, the retiring Administrative Agent shall continue to hold such collateral security until such time as a successor Administrative Agent is appointed) and (b) all payments, communications and determinations provided to be made by, to or through the Administrative Agent shall instead be made by or to each Lender and the L/C Issuer directly, until such time as the Required Lenders appoint a successor Administrative Agent as provided for above in this Section. Upon the acceptance of a successor's appointment as Administrative Agent hereunder, such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring (or retired) Administrative Agent, and the retiring Administrative Agent shall be discharged from all of its duties and obligations hereunder or under the other Loan Documents (if not already discharged therefrom as provided above in this Section). The fees payable by the Borrower to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Borrower and such successor. After the retiring Administrative Agent's resignation hereunder and under the other Loan Documents, the provisions of this Article and Section 11.04 shall continue in effect for the benefit of such retiring Administrative Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them while the retiring Administrative Agent was acting as Administrative Agent.

Any resignation by Bank of America as Administrative Agent pursuant to this Section shall also constitute its resignation as L/C Issuer. Upon the acceptance of a successor's appointment as Administrative Agent hereunder, (i) such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring L/C Issuer, (ii) the retiring L/C Issuer shall be discharged from all of their respective duties and obligations hereunder or under the other Loan Documents, and (iii) the successor L/C Issuer shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such succession or make other arrangements satisfactory to the retiring L/C Issuer to effectively assume the obligations of the retiring L/C Issuer with respect to such Letters of Credit.

9.07 Non-Reliance on Administrative Agent and Other Lenders. Each Lender and the L/C Issuer acknowledges that it has, independently and without reliance upon the Administrative Agent or any other Lender or any of their Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Lender and the L/C Issuer also acknowledges that it will, independently and without reliance upon the Administrative Agent or any other Lender or any of their Related Parties and based on such documents and information as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any other Loan Document or any related agreement or any document furnished hereunder or thereunder.

9.08 No Other Duties, Etc. Anything herein to the contrary notwithstanding, none of the Bookrunners listed on the cover page hereof shall have any powers, duties or responsibilities under this Agreement or any of the other Loan Documents, except in its capacity, as applicable, as the Administrative Agent, a Lender or the L/C Issuer hereunder.

9.09 Administrative Agent May File Proofs of Claim. In case of the pendency of any proceeding under any Debtor Relief Law or any other judicial proceeding relative to any Loan Party, the Administrative Agent (irrespective of whether the principal of any Loan or L/C Obligation shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Administrative Agent shall have made any demand on the Borrower) shall be entitled and empowered, by intervention in such proceeding or otherwise

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans, L/C Obligations and all other Obligations that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Lenders, the L/C Issuer and the Administrative Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Lenders, the L/C Issuer and the Administrative Agent and their respective agents and counsel and all other amounts due the Lenders, the L/C Issuer and the Administrative Agent under Sections 2.03(i) and (j), 2.09 and 11.04) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Lender and the L/C Issuer to make such payments to the Administrative Agent and, if the Administrative Agent shall consent to the making of such payments directly to the Lenders and the L/C Issuer, to pay to the Administrative Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Administrative Agent and its agents and counsel, and any other amounts due the Administrative Agent under Sections 2.09 and 11.04.

Nothing contained herein shall be deemed to authorize the Administrative Agent to authorize or consent to or accept or adopt on behalf of any Lender or the L/C Issuer any plan of reorganization, arrangement, adjustment or composition affecting the Obligations or the rights of any Lender or the L/C Issuer to authorize the Administrative Agent to vote in respect of the claim of any Lender or the L/C Issuer or in any such proceeding.

9.10 Collateral and Guaranty Matters. Each of the Lenders (including in its capacities as a potential Cash Management Bank and a potential Hedge Bank) and the L/C Issuer irrevocably authorize the Administrative Agent, at its option and in its discretion,

(a) to release any Lien on any property granted to or held by the Administrative Agent under any Loan Document (i) upon termination of the Aggregate Commitments and payment in full of all Obligations (other than (A) contingent indemnification obligations and (B) obligations and liabilities under Secured Cash Management Agreements and Secured Hedge Agreements as to which arrangements satisfactory to the applicable Cash Management Bank of Hedge Bank shall have been made) and the expiration or termination of all Letters of Credit (other than Letters of Credit as to which other arrangements satisfactory to the Administrative Agent and the L/C Issuer shall have been made), (ii) that is sold or to be sold as part of or in connection with any sale permitted hereunder or under any other Loan Document, or (iii) if approved, authorized or ratified in writing in accordance with Section 11.01;

(b) to release any Guarantor from its obligations under the Guaranty if such Person ceases to be a Subsidiary as a result of a transaction permitted hereunder; and

(c) to subordinate any Lien on any property granted to or held by the Administrative Agent under any Loan Document to the holder of any Lien on such property that is permitted by Section 7.01(i).

Upon request by the Administrative Agent at any time, the Required Lenders will confirm in writing the Administrative Agent's authority to release or subordinate its interest in particular types or items of property, or to release any Guarantor from its obligations under the Guaranty pursuant to this Section 9.10. In each case as specified in this Section 9.10, the Administrative Agent will, at the Borrower's expense, execute and deliver to the applicable Loan Party such documents as such Loan Party may reasonably request to evidence the release of such item of Collateral from the assignment and security interest granted under the Collateral Documents or to subordinate its interest in such item, or to release such Guarantor from its obligations under the Guaranty, in each case in accordance with the terms of the Loan Documents and this Section 9.10.

#### 9.11 Secured Cash Management Agreements and Secured Hedge Agreements

No Cash Management Bank or Hedge Bank that obtains the benefits of Section 8.03, any Guaranty or any Collateral by virtue of the provisions hereof or of any Guaranty or any Collateral Document shall have any right to notice of any action or to consent to, direct or object to any action hereunder or under any other Loan Document or otherwise in respect of the Collateral (including the release or impairment of any Collateral) other than in its capacity as a Lender and, in such case, only to the extent expressly provided in the Loan Documents. Notwithstanding any other provision of this Article IX to the contrary, the Administrative Agent shall not be required to verify the payment of, or that other satisfactory arrangements have been made with respect to, Obligations arising under Secured Cash Management Agreements and Secured Hedge Agreements unless the Administrative Agent has received written notice of such Obligations, together with such supporting documentation as the Administrative Agent may request, from the applicable Cash Management Bank or Hedge Bank, as the case may be.

ARTICLE X  
RESERVED

ARTICLE XI  
MISCELLANEOUS

11.01 Amendments, Etc. No amendment or waiver of any provision of this Agreement or any other Loan Document, and no consent to any departure by the Borrower or any other Loan Party therefrom, shall be effective unless in writing signed by the Required Lenders and the Borrower or the applicable Loan Party, as the case may be, and acknowledged by the Administrative Agent, and each such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given; provided, however, that no such amendment, waiver or consent shall:

(a) waive any condition set forth in Section 4.01 (other than Section 4.01(b)(i) or (c)), or, in the case of the initial Credit Extension, Section 4.02, without the written consent of each Lender;

- (b) extend or increase the Commitment of any Lender (or reinstate any Commitment terminated pursuant to Section 8.02) without the written consent of such Lender;
- (c) postpone any date fixed by this Agreement or any other Loan Document for (i) any payment (excluding mandatory prepayments) of principal, interest, fees or other amounts due to the Lenders (or any of them) hereunder or under such other Loan Document without the written consent of each Lender entitled to such payment or (ii) any scheduled reduction of any Facility hereunder or under any other Loan Document without the written consent of each Appropriate Lender;
- (d) reduce the principal of, or the rate of interest specified herein on, any Loan or L/C Borrowing, or (subject to clause (iv)(v) of the second proviso to this Section 11.01) any fees or other amounts payable hereunder or under any other Loan Document, or change the manner of computation of any financial ratio (including any change in any applicable defined term) used in determining the Applicable Rate that would result in a reduction of any interest rate on any Loan or any fee payable hereunder without the written consent of each Lender entitled to such amount; provided, however, that only the consent of the Required Lenders shall be necessary (i) to amend the definition of “Default Rate” or to waive any obligation of the Borrower to pay interest or Letter of Credit Fees at the Default Rate or (ii) to amend any financial covenant hereunder (or any defined term used therein) even if the effect of such amendment would be to reduce the rate of interest on any Loan or L/C Borrowing or to reduce any fee payable hereunder;
- (e) change (i) Section 8.03 in a manner that would alter the pro rata sharing of payments required thereby without the written consent of each Lender or (ii) the order of application of any reduction in the Commitments or any prepayment of Loans among the Facilities from the application thereof set forth in the applicable provisions of Section 2.05(b) or 2.06(b), respectively, in any manner that materially and adversely affects the Lenders under a Facility without the written consent of (i) if such Facility is the Term Loan, the Required Term Lenders and (ii) if such Facility is the Revolving Credit Facility, the Required Revolving Lenders;
- (f) change (i) any provision of this Section 11.01 or the definition of “Required Lenders” or any other provision hereof specifying the number or percentage of Lenders required to amend, waive or otherwise modify any rights hereunder or make any determination or grant any consent hereunder (other than the definitions specified in clause (ii) of this Section 11.01(g)), without the written consent of each Lender or (ii) the definition of “Required Revolving Lenders,” or “Required Term Lenders,” without the written consent of each Lender under the applicable Facility;
- (g) release all or substantially all of the Collateral in any transaction or series of related transactions, without the written consent of each Lender;
- (h) release all or substantially all of the value of the Guaranty, without the written consent of each Lender, except to the extent the release of any Subsidiary from the Guaranty is permitted pursuant to Section 9.10 (in which case such release may be made by the Administrative Agent acting alone); or

(i) impose any greater restriction on the ability of any Lender under a Facility to assign any of its rights or obligations hereunder without the written consent of (i) if such Facility is the Term Loan, the Required Term Lenders and (ii) if such Facility is the Revolving Credit Facility, the Required Revolving Lenders;

and provided, further, that no amendment, waiver or consent shall, unless in writing and signed by the L/C Issuer in addition to the Lenders required above, affect the rights or duties of the L/C Issuer under this Agreement or any Issuer Document relating to any Letter of Credit issued or to be issued by it and no amendment, waiver or consent shall, unless in writing and signed by the Administrative Agent in addition to the Lenders required above, affect the rights or duties of the Administrative Agent under this Agreement or any other Loan Document may be amended, or rights or privileges thereunder waived, in a writing executed only by the parties thereto. Notwithstanding anything to the contrary herein, no Defaulting Lender shall have any right to approve or disapprove any amendment, waiver or consent hereunder, except that the Commitment of such Lender may not be increased or extended without the consent of such Lender.

#### 11.02 Notices; Effectiveness; Electronic Communications

(a) Notices Generally. Except in the case of notices and other communications expressly permitted to be given by telephone (and except as provided in subsection (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopier as follows, and all notices and other communications expressly permitted hereunder to be given by telephone shall be made to the applicable telephone number, as follows:

(i) if to the Borrower, the Administrative Agent or the L/C Issuer, to the address, telecopier number, electronic mail address or telephone number specified for such Person on Schedule 11.02; and

(ii) if to any other Lender, to the address, telecopier number, electronic mail address or telephone number specified in its Administrative Questionnaire.

Notices and other communications sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices and other communications sent by telecopier shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices and other communications delivered through electronic communications to the extent provided in subsection (b) below shall be effective as provided in such subsection (b).

(b) Electronic Communications. Notices and other communications to the Lenders and the L/C Issuer hereunder may be delivered or furnished by electronic communication (including e-mail and Internet or intranet websites) pursuant to procedures approved by the Administrative Agent, provided that the foregoing shall not apply to notices to any Lender or the L/C Issuer pursuant to Article II if such Lender or the L/C Issuer, as applicable, has notified the Administrative Agent that it is incapable of receiving notices under such Article by electronic communication. The Administrative Agent or the Borrower may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it, provided that approval of such procedures may be limited to particular notices or communications.



Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), provided that if such notice or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient, and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient at its e-mail address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor.

(c) The Platform. THE PLATFORM IS PROVIDED "AS IS" AND "AS AVAILABLE." THE AGENT PARTIES (AS DEFINED BELOW) DO NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE BORROWER MATERIALS OR THE ADEQUACY OF THE PLATFORM, AND EXPRESSLY DISCLAIM LIABILITY FOR ERRORS IN OR OMISSIONS FROM THE BORROWER MATERIALS. NO WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF THIRD PARTY RIGHTS OR FREEDOM FROM VIRUSES OR OTHER CODE DEFECTS, IS MADE BY ANY AGENT PARTY IN CONNECTION WITH THE BORROWER MATERIALS OR THE PLATFORM. In no event shall the Administrative Agent or any of its Related Parties (collectively, the "Agent Parties") have any liability to the Borrower, any Lender, the L/C Issuer or any other Person for losses, claims, damages, liabilities or expenses of any kind (whether in tort, contract or otherwise) arising out of the Borrower's or the Administrative Agent's transmission of Borrower Materials through the Internet, except to the extent that such losses, claims, damages, liabilities or expenses are determined by a court of competent jurisdiction by a final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Agent Party; provided, however, that in no event shall any Agent Party have any liability to the Borrower, any Lender, the L/C Issuer or any other Person for indirect, special, incidental, consequential or punitive damages (as opposed to direct or actual damages).

(d) Change of Address, Etc.. The Borrower, the Administrative Agent and the L/C Issuer may change its address, telecopier or telephone number for notices and other communications hereunder by notice to the other parties hereto. Each other Lender may change its address, telecopier or telephone number for notices and other communications hereunder by notice to the Borrower, the Administrative Agent and the L/C Issuer. In addition, each Lender agrees to notify the Administrative Agent from time to time to ensure that the Administrative Agent has on record (i) an effective address, contact name, telephone number, telecopier number and electronic mail address to which notices and other communications may be sent and (ii) accurate wire instructions for such Lender. Furthermore, each Public Lender agrees to cause at least one individual at or on behalf of such Public Lender to at all times have selected the “Private Side Information” or similar designation on the content declaration screen of the Platform in order to enable such Public Lender or its delegate, in accordance with such Public Lender’s compliance procedures and applicable Law, including United States Federal and state securities Laws, to make reference to Borrower Materials that are not made available through the “Public Side Information” portion of the Platform and that may contain material non-public information with respect to the Borrower or its securities for purposes of United States Federal or state securities laws.

(e) Reliance by Administrative Agent, L/C Issuer and Lenders. The Administrative Agent, the L/C Issuer and the Lenders shall be entitled to rely and act upon any notices (including telephonic Committed Loan Notices) purportedly given by or on behalf of the Borrower even if (i) such notices were not made in a manner specified herein, were incomplete or were not preceded or followed by any other form of notice specified herein, or (ii) the terms thereof, as understood by the recipient, varied from any confirmation thereof. The Borrower shall indemnify the Administrative Agent, the L/C Issuer, each Lender and the Related Parties of each of them from all losses, costs, expenses and liabilities resulting from the reliance by such Person on each notice purportedly given by or on behalf of the Borrower. All telephonic notices to and other telephonic communications with the Administrative Agent may be recorded by the Administrative Agent, and each of the parties hereto hereby consents to such recording.

#### 11.03 No Waiver; Cumulative Remedies; Enforcement

No failure by any Lender, the L/C Issuer or the Administrative Agent to exercise, and no delay by any such Person in exercising, any right, remedy, power or privilege hereunder or under any other Loan Document shall operate as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges herein provided, and provided under each other Loan Document, are cumulative and not exclusive of any rights, remedies, powers and privileges provided by law.

Notwithstanding anything to the contrary contained herein or in any other Loan Document, the authority to enforce rights and remedies hereunder and under the other Loan Documents against the Loan Parties or any of them shall be vested exclusively in, and all actions and proceedings at law in connection with such enforcement shall be instituted and maintained exclusively by, the Administrative Agent in accordance with Section 8.02 for the benefit of all the Lenders and the L/C Issuer; provided, however, that the foregoing shall not prohibit (a) the Administrative Agent from exercising on its own behalf the rights and remedies that inure to its benefit (solely in its capacity as Administrative Agent) hereunder and under the other Loan Documents, (b) the L/C Issuer from exercising the rights and remedies that inure to its benefit (solely in its capacity as L/C Issuer) hereunder and under the other Loan Documents, (c) any Lender from exercising setoff rights in accordance with Section 11.08 (subject to the terms of Section 2.13), or (d) any Lender from filing proofs of claim or appearing and filing pleadings on its own behalf during the pendency of a proceeding relative to any Loan Party under any Debtor Relief Law; and provided, further, that if at any time there is no Person acting as Administrative Agent hereunder and under the other Loan Documents, then (i) the Required Lenders shall have the rights otherwise ascribed to the Administrative Agent pursuant to Section 8.02 and (ii) in addition to the matters set forth in clauses (b), (c) and (d) of the preceding proviso and subject to Section 2.13, any Lender may, with the consent of the Required Lenders, enforce any rights and remedies available to it and as authorized by the Required Lenders.

11.04 Expenses; Indemnity; Damage Waiver

(a) Costs and Expenses. The Borrower shall pay (i) all reasonable out-of-pocket expenses incurred by the Administrative Agent and its Affiliates (including the reasonable fees, charges and disbursements of counsel for the Administrative Agent), in connection with the syndication of the credit facilities provided for herein, the preparation, negotiation, execution, delivery and administration of this Agreement and the other Loan Documents or any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), (ii) all reasonable out-of-pocket expenses incurred by the L/C Issuer in connection with the issuance, amendment, renewal or extension of any Letter of Credit or any demand for payment thereunder and (iii) all out-of-pocket expenses incurred by the Administrative Agent, any Lender or the L/C Issuer (including the fees, charges and disbursements of any counsel for the Administrative Agent, any Lender or the L/C Issuer, in connection with the enforcement or protection of its rights) (A) in connection with this Agreement and the other Loan Documents, including its rights under this Section, or (B) in connection with Loans made or Letters of Credit issued hereunder, including all such out-of-pocket expenses incurred during any workout, restructuring or negotiations in respect of such Loans or Letters of Credit.

(b) Indemnification by the Borrower. The Borrower shall indemnify the Administrative Agent (and any sub-agent thereof), each Lender and the L/C Issuer, and each Related Party of any of the foregoing Persons (each such Person being called an “Indemnitee”) against, and hold each Indemnitee harmless from, any and all losses, claims, damages, liabilities and related expenses, including the fees, charges and disbursements of any counsel for any Indemnitee, incurred by any Indemnitee or asserted against any Indemnitee by any third party or by the Borrower or any other Loan Party arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document or any agreement or instrument contemplated hereby or thereby, the performance by the parties hereto of their respective obligations hereunder or thereunder or the consummation of the transactions contemplated hereby or thereby, or, in the case of the Administrative Agent (and any sub-agent thereof) and its Related Parties only, the administration of this Agreement and the other Loan Documents, (ii) any Loan or Letter of Credit or the use or proposed use of the proceeds therefrom (including any refusal by the L/C Issuer to honor a demand for payment under a Letter of Credit if the documents presented in connection with such demand do not strictly comply with the terms of such Letter of Credit), (iii) any actual or alleged presence or release of Hazardous Materials on or from any property owned or operated by the Borrower or any of its Subsidiaries, or any Environmental Liability related in any way to the Borrower or any of its Subsidiaries, or (iv) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory, whether brought by a third party or by the Borrower or any other Loan Party, and regardless of whether any Indemnitee is a party thereto; provided that such indemnity shall not, as to any Indemnitee, be available to the extent that such losses, claims, damages, liabilities or related expenses (x) are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee or (y) result from a claim brought by the Borrower or any other Loan Party against an Indemnitee for breach in bad faith of such Indemnitee’s obligations hereunder or under any other Loan Document, if the Borrower or such Loan Party has obtained a final and nonappealable judgment in its favor on such claim as determined by a court of competent jurisdiction.

(c) Reimbursement by Lenders. To the extent that the Borrower for any reason fails to indefeasibly pay any amount required under subsection (a) or (b) of this Section to be paid by it to the Administrative Agent (or any sub-agent thereof), the L/C Issuer or any Related Party of any of the foregoing, each Lender severally agrees to pay to the Administrative Agent (or any such sub-agent), the L/C Issuer or such Related Party, as the case may be, such Lender's Applicable Percentage (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought) of such unpaid amount, provided that the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against the Administrative Agent (or any such sub-agent) or the L/C Issuer in its capacity as such, or against any Related Party of any of the foregoing acting for the Administrative Agent (or any such sub-agent) or L/C Issuer in connection with such capacity. The obligations of the Lenders under this subsection (c) are subject to the provisions of Section 2.12(d).

(d) Waiver of Consequential Damages, Etc. To the fullest extent permitted by applicable law and even if advised of the possibility thereof, the Borrower shall not assert, and hereby waives, any claim against any Indemnitee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, any Loan or Letter of Credit or the use of the proceeds thereof. No Indemnitee referred to in subsection (b) above shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed to such unintended recipients by such Indemnitee through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby other than for direct or actual damages resulting from the gross negligence or willful misconduct of such Indemnitee as determined by a final and nonappealable judgment of a court of competent jurisdiction.

(e) Payments. All amounts due under this Section shall be payable not later than ten Business Days after demand therefor.

(f) Survival. The agreements in this Section shall survive the resignation of the Administrative Agent and the L/C Issuer, the replacement of any Lender, the termination of the Aggregate Commitments and the repayment, satisfaction or discharge of all the other Obligations.

#### 11.05 Payments Set Aside

To the extent that any payment by or on behalf of the Borrower is made to the Administrative Agent, the L/C Issuer or any Lender, or the Administrative Agent, the L/C Issuer or any Lender exercises its right of setoff, and such payment or the proceeds of such setoff or any part thereof is subsequently invalidated, declared to be fraudulent or preferential, set aside or required (including pursuant to any settlement entered into by the Administrative Agent, the L/C Issuer or such Lender in its discretion) to be repaid to a trustee, receiver or any other party, in connection with any proceeding under any Debtor Relief Law or otherwise, then (a) to the extent of such recovery, the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such setoff had not occurred, and (b) each Lender and the L/C Issuer severally agrees to pay to the Administrative Agent upon demand its applicable share (without duplication) of any amount so recovered from or repaid by the Administrative Agent, plus interest thereon from the date of such demand to the date such payment is made at a rate per annum equal to the Federal Funds Rate from time to time in effect. The obligations of the Lenders and the L/C Issuer under clause (b) of the preceding sentence shall survive the payment in full of the Obligations and the termination of this Agreement.

#### 11.06 Successors and Assigns

(a) Successors and Assigns Generally. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that the Borrower may not assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Administrative Agent and each Lender and no Lender may assign or otherwise transfer any of its rights or obligations hereunder except (i) to an assignee in accordance with the provisions of Section 11.06(b), (ii) by way of participation in accordance with the provisions of Section 11.06(d), or (iii) by way of pledge or assignment of a security interest subject to the restrictions of Section 11.06(f) (and any other attempted assignment or transfer by any party hereto shall be null and void). Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby, Participants to the extent provided in subsection (d) of this Section and, to the extent expressly contemplated hereby, the Related Parties of each of the Administrative Agent, the L/C Issuer and the Lenders) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) Assignments by Lenders. Any Lender may at any time assign to one or more assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitment(s) and the Loans (including for purposes of this Section 11.06(b)), participations in L/C Obligations) at the time owing to it); provided that any such assignment shall be subject to the following conditions:

(i) Minimum Amounts.

(A) in the case of an assignment of the entire remaining amount of the assigning Lender's Commitment under any Facility and the Loans at the time owing to it under such Facility or in the case of an assignment to a Lender, an Affiliate of a Lender or an Approved Fund, no minimum amount need be assigned; and

(B) in any case not described in subsection (b)(i)(A) of this Section, the aggregate amount of the Commitment (which for this purpose includes Loans outstanding thereunder) or, if the Commitment is not then in effect, the principal outstanding balance of the Loans of the assigning Lender subject to each such assignment, determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment and Assumption, as of the Trade Date, shall not be less than \$5,000,000, in the case of any assignment in respect of the Revolving Credit Facility, or \$1,000,000, in the case of any assignment in respect of the Term Loan, unless each of the Administrative Agent and, so long as no Event of Default has occurred and is continuing, the Borrower otherwise consents (each such consent not to be unreasonably withheld or delayed); provided, however, that concurrent assignments to members of an Assignee Group and concurrent assignments from members of an Assignee Group to a single Eligible Assignee (or to an Eligible Assignee and members of its Assignee Group) will be treated as a single assignment for purposes of determining whether such minimum amount has been met;

(ii) Proportionate Amounts. Each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement with respect to the Loans or the Commitment assigned, except that this clause (ii) shall not prohibit any Lender from assigning all or a portion of its rights and obligations among separate Facilities on a non-pro rata basis;

(iii) Required Consents. No consent shall be required for any assignment except to the extent required by subsection (b)(i)(B) of this Section and, in addition:

(A) the consent of the Borrower (such consent not to be unreasonably withheld or delayed) shall be required unless (1) an Event of Default has occurred and is continuing at the time of such assignment or (2) such assignment is to a Lender, an Affiliate of a Lender or an Approved Fund; provided that the Borrower shall be deemed to have consented to any such assignment unless it shall object thereto by written notice to the Administrative Agent within five (5) Business Days after having received notice thereof;

(B) the consent of the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required for assignments in respect of (1) the Term Loan or any Revolving Credit Commitment if such assignment is to a Person that is not a Lender with a Commitment in respect of the Term Loan or Revolving Credit Facility, an Affiliate of such Lender or an Approved Fund with respect to such Lender or (2) the Term Loan to a Person that is not a Lender, an Affiliate of a Lender or an Approved Fund; and

(C) the consent of the L/C Issuer (such consent not to be unreasonably withheld or delayed) shall be required for any assignment that increases the obligation of the assignee to participate in exposure under one or more Letters of Credit (whether or not then outstanding).

(iv) Assignment and Assumption. The parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption, together with a processing and recordation fee in the amount of \$3,500; provided, however, that the Administrative Agent may, in its sole discretion, elect to waive such processing and recordation fee in the case of any assignment. The assignee, if it is not a Lender, shall deliver to the Administrative Agent an Administrative Questionnaire.

(v) No Assignment to Borrower. No such assignment shall be made to the Borrower or any of the Borrower's Affiliates or Subsidiaries.

(vi) No Assignment to Natural Persons. No such assignment shall be made to a natural person.

Subject to acceptance and recording thereof by the Administrative Agent pursuant to subsection (c) of this Section, from and after the effective date specified in each Assignment and Assumption, the assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto) but shall continue to be entitled to the benefits of Sections 3.01, 3.04, 3.05 and 11.04 with respect to facts and circumstances occurring prior to the effective date of such assignment. Upon request, the Borrower (at its expense) shall execute and deliver a Note to the assignee Lender. Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this subsection shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with Section 11.06(d).

(c) Register. The Administrative Agent, acting solely for this purpose as an agent of the Borrower, shall maintain at the Administrative Agent's Office a copy of each Assignment and Assumption delivered to it and a register for the recordation of the names and addresses of the Lenders, and the Commitments of, and principal amounts of the Loans and L/C Obligations owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive, and the Borrower, the Administrative Agent and the Lenders may treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by the Borrower and any Lender, at any reasonable time and from time to time upon reasonable prior notice.

(d) Participations. Any Lender may at any time, without the consent of, or notice to, the Borrower or the Administrative Agent, sell participations to any Person (other than a natural person or the Borrower or any of the Borrower's Affiliates or Subsidiaries) (each, a "Participant") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of its Commitment and/or the Loans (including such Lender's participations in L/C Obligations) owing to it); provided that (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) the Borrower, the Administrative Agent, the Lenders and the L/C Issuer shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement. Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, waiver or other modification described in the first proviso to Section 11.01 that affects such Participant. Subject to subsection (e) of this Section, the Borrower agrees that each Participant shall be entitled to the benefits of Sections 3.01, 3.04 and 3.05 to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to Section 11.06(b). To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 11.08 as though it were a Lender, provided such Participant agrees to be subject to Section 2.13 as though it were a Lender.

(e) Limitations upon Participant Rights. A Participant shall not be entitled to receive any greater payment under Section 3.01 or 3.04 than the applicable Lender would have been entitled to receive with respect to the participation sold to such Participant, unless the sale of the participation to such Participant is made with the Borrower's prior written consent. A Participant that would be a Foreign Lender if it were a Lender shall not be entitled to the benefits of Section 3.01 unless the Borrower is notified of the participation sold to such Participant and such Participant agrees, for the benefit of the Borrower, to comply with Section 3.01(e) as though it were a Lender.



(f) Certain Pledges. Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement (including under its Note, if any) to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank; provided that no such pledge or assignment shall release such Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

(g) Resignation as L/C Issuer after Assignment. Notwithstanding anything to the contrary contained herein, if at any time Bank of America assigns all of its Revolving Credit Commitment and Revolving Credit Loans pursuant to Section 11.06(b), Bank of America may, upon 30 days' notice to the Borrower and the Lenders, resign as L/C Issuer. In the event of any such resignation as L/C Issuer, the Borrower shall be entitled to appoint from among the Lenders a successor L/C Issuer hereunder; provided, however, that no failure by the Borrower to appoint any such successor shall affect the resignation of Bank of America as L/C Issuer. If Bank of America resigns as L/C Issuer, it shall retain all the rights, powers, privileges and duties of the L/C Issuer hereunder with respect to all Letters of Credit outstanding as of the effective date of its resignation as L/C Issuer and all L/C Obligations with respect thereto (including the right to require the Lenders to make LIBOR Daily Floating Rate Loans or fund risk participations in Unreimbursed Amounts pursuant to Section 2.03(c)). Upon the appointment of a successor L/C Issuer, (a) such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring L/C Issuer, and (b) the successor L/C Issuer shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such succession or make other arrangements satisfactory to Bank of America to effectively assume the obligations of Bank of America with respect to such Letters of Credit.

11.07 Treatment of Certain Information; Confidentiality. Each of the Administrative Agent, the Lenders and the L/C Issuer agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Affiliates and to its and its Affiliates' respective partners, directors, officers, employees, agents, trustees, advisors and representatives (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent requested by any regulatory authority purporting to have jurisdiction over it (including any self-regulatory authority, such as the National Association of Insurance Commissioners), (c) to the extent required by applicable laws or regulations or by any subpoena or similar legal process, (d) to any other party hereto, (e) in connection with the exercise of any remedies hereunder or under any other Loan Document or any action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder, (f) subject to an agreement containing provisions substantially the same as those of this Section, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights or obligations under this Agreement or (ii) any actual or prospective counterparty (or its advisors) to any swap or derivative transaction relating to the Borrower and its obligations, (g) with the consent of the Borrower or (h) to the extent such Information (i) becomes publicly available other than as a result of a breach of this Section or (ii) becomes available to the Administrative Agent, any Lender, the L/C Issuer or any of their respective Affiliates on a nonconfidential basis from a source other than the Borrower.

For purposes of this Section, “Information” means all information received from any Loan Party or any Subsidiary thereof relating to any Loan Party or any Subsidiary thereof or their respective businesses, other than any such information that is available to the Administrative Agent, any Lender or the L/C Issuer on a nonconfidential basis prior to disclosure by any Loan Party or any Subsidiary thereof, provided that, in the case of information received from a Loan Party or any such Subsidiary after the date hereof, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

Each of the Administrative Agent, the Lenders and the L/C Issuer acknowledges that (a) the Information may include material non-public information concerning the Borrower or a Subsidiary, as the case may be, (b) it has developed compliance procedures regarding the use of material non-public information and (c) it will handle such material non-public information in accordance with applicable Law, including United States Federal and state securities Laws.

11.08 Right of Setoff. If an Event of Default shall have occurred and be continuing, each Lender, the L/C Issuer and each of their respective Affiliates is hereby authorized at any time and from time to time, to the fullest extent permitted by applicable law, to set off and apply any and all deposits (general or special, time or demand, provisional or final, in whatever currency) at any time held and other obligations (in whatever currency) at any time owing by such Lender, the L/C Issuer or any such Affiliate to or for the credit or the account of the Borrower against any and all of the obligations of the Borrower now or hereafter existing under this Agreement or any other Loan Document to such Lender or the L/C Issuer, irrespective of whether or not such Lender or the L/C Issuer shall have made any demand under this Agreement or any other Loan Document and although such obligations of the Borrower may be contingent or unmatured or are owed to a branch or office of such Lender or the L/C Issuer different from the branch or office holding such deposit or obligated on such indebtedness. The rights of each Lender, the L/C Issuer and their respective Affiliates under this Section are in addition to other rights and remedies (including other rights of setoff) that such Lender, the L/C Issuer or their respective Affiliates may have. Each Lender and the L/C Issuer agrees to notify the Borrower and the Administrative Agent promptly after any such setoff and application, provided that the failure to give such notice shall not affect the validity of such setoff and application.

11.09 Interest Rate Limitation. Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable Law (the “Maximum Rate”). If the Administrative Agent or any Lender shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans or, if it exceeds such unpaid principal, refunded to the Borrower. In determining whether the interest contracted for, charged, or received by the Administrative Agent or a Lender exceeds the Maximum Rate, such Person may, to the extent permitted by applicable Law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof, and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Obligations hereunder.

11.10 Counterparts; Integration; Effectiveness. This Agreement and each of the other Loan Documents may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement, the other Loan Documents, and any separate letter agreements with respect to fees payable to the Administrative Agent or the L/C Issuer, constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. Except as provided in Section 4.01, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto. Delivery of an executed counterpart of a signature page of this Agreement or any other Loan Document, or any certificate delivered thereunder, by fax transmission or email transmission (e.g., “pdf” or “tif”) shall be effective as delivery of a manually executed counterpart of this Agreement or such other Loan Document or certificate. Without limiting the foregoing, to the extent a manually executed counterpart is not specifically required to be delivered under the terms of any Loan Document, upon the request of any party, such fax transmission or e-mail transmission shall be promptly followed by such manually executed counterpart.

11.11 Survival of Representations and Warranties. All representations and warranties made hereunder and in any other Loan Document or other document delivered pursuant hereto or thereto or in connection herewith or therewith shall survive the execution and delivery hereof and thereof. Such representations and warranties have been or will be relied upon by the Administrative Agent and each Lender, regardless of any investigation made by the Administrative Agent or any Lender or on their behalf and notwithstanding that the Administrative Agent or any Lender may have had notice or knowledge of any Default at the time of any Credit Extension, and shall continue in full force and effect as long as any Loan or any other Obligation hereunder shall remain unpaid or unsatisfied or any Letter of Credit shall remain outstanding.

11.12 Severability. If any provision of this Agreement or the other Loan Documents is held to be illegal, invalid or unenforceable, (a) the legality, validity and enforceability of the remaining provisions of this Agreement and the other Loan Documents shall not be affected or impaired thereby and (b) the parties shall endeavor in good faith negotiations to replace the illegal, invalid or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the illegal, invalid or unenforceable provisions. The invalidity of a provision in a particular jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

11.13 Replacement of Lenders

If any Lender requests compensation under Section 3.04, or if the Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 3.01, or if any Lender is a Defaulting Lender, then the Borrower may, at its sole expense and effort, upon notice to such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in, and consents required by, Section 11.06), all of its interests, rights and obligations under this Agreement and the related Loan Documents to an assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment), provided that:

(a) the Borrower shall have paid to the Administrative Agent the assignment fee specified in Section 11.06(b);

(b) such Lender shall have received payment of an amount equal to the outstanding principal of its Loans and L/C Advances, accrued interest thereon, accrued fees and all other amounts payable to it hereunder and under the other Loan Documents (including any amounts under Section 3.05) from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower (in the case of all other amounts);

(c) in the case of any such assignment resulting from a claim for compensation under Section 3.04 or payments required to be made pursuant to Section 3.01, such assignment will result in a reduction in such compensation or payments thereafter; and

(d) such assignment does not conflict with applicable Laws.

A Lender shall not be required to make any such assignment or delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Borrower to require such assignment and delegation cease to apply.

11.14 Governing Law; Jurisdiction; Etc.

(a) GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE COMMONWEALTH OF MASSACHUSETTS.

(b) SUBMISSION TO JURISDICTION. THE BORROWER AND EACH OTHER LOAN PARTY IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE NONEXCLUSIVE JURISDICTION OF THE COURTS OF THE COMMONWEALTH OF MASSACHUSETTS SITTING IN SUFFOLK COUNTY AND OF THE UNITED STATES DISTRICT COURT OF THE DISTRICT OF MASSACHUSETTS, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT, OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH STATE COURT OR, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT OR IN ANY OTHER LOAN DOCUMENT SHALL AFFECT ANY RIGHT THAT THE ADMINISTRATIVE AGENT, ANY LENDER OR THE L/C ISSUER MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AGAINST THE BORROWER OR ANY OTHER LOAN PARTY OR THEIR RESPECTIVE PROPERTIES IN THE COURTS OF ANY JURISDICTION.

(c) WAIVER OF VENUE. THE BORROWER AND EACH OTHER LOAN PARTY IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT IN ANY COURT REFERRED TO IN PARAGRAPH (B) OF THIS SECTION. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

(d) SERVICE OF PROCESS. EACH PARTY HERETO IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 11.02. NOTHING IN THIS AGREEMENT WILL AFFECT THE RIGHT OF ANY PARTY HERETO TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY APPLICABLE LAW

11.15 Waiver of Jury Trial

EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

11.16 No Advisory or Fiduciary Responsibility

In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Loan Document), the Borrower acknowledges and agrees that: (i) (A) the arranging and other services regarding this Agreement provided by the Administrative Agent are arm's-length commercial transactions between the Borrower and its Affiliates, on the one hand, and the Administrative Agent, on the other hand, (B) the Borrower has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate, and (C) the Borrower is capable of evaluating, and understands and accepts, the terms, risks and conditions of the transactions contemplated hereby and by the other Loan Documents; (ii) (A) the Administrative Agent is and has been acting solely as a principal and, except as expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary for the Borrower or any of its Affiliates, or any other Person and (B) the Administrative Agent has no obligation to the Borrower or any of its Affiliates with respect to the transactions contemplated hereby except those obligations expressly set forth herein and in the other Loan Documents; and (iii) the Administrative Agent and its respective Affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Borrower and its Affiliates, and the Administrative Agent has no obligation to disclose any of such interests to the Borrower or its Affiliates. To the fullest extent permitted by law, the Borrower hereby waives and releases any claims that it may have against the Administrative Agent with respect to any breach or alleged breach of agency or fiduciary duty in connection with any aspect of any transaction contemplated hereby.

11.17 Reserved

11.18 USA PATRIOT Act

Each Lender that is subject to the Act (as hereinafter defined) and the Administrative Agent (for itself and not on behalf of any Lender) hereby notifies the Borrower that pursuant to the requirements of the USA PATRIOT Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) (the “Act”), it is required to obtain, verify and record information that identifies each Loan Party, which information includes the name and address of each Loan Party and other information that will allow such Lender or the Administrative Agent, as applicable, to identify each Loan Party in accordance with the Act. The Borrower shall, promptly following a request by the Administrative Agent or any Lender, provide all documentation and other information that the Administrative Agent or such Lender requests in order to comply with its ongoing obligations under applicable “know your customer” an anti-money laundering rules and regulations, including the Act.

11.19 Time of the Essence

Time is of the essence of the Loan Documents.

11.20 Eligible Contract Participant. (a) Notwithstanding anything in the Loan Documents to the contrary, a Loan Party shall not be deemed to be a guarantor of any Obligations arising out of or in connection with any Hedging Agreements if such Loan Party is not an “Eligible Contract Participant” (as defined in § 1(a)(18) of the Commodity Exchange Act and the applicable rules issued by the Commodity Futures Trading Commission and/or the SEC (collectively, and as now or hereafter in effect, the “ECP Rules”)) to the extent that the providing of such guaranty by such Loan Party would violate the ECP Rules or any other applicable law or regulation. This paragraph shall not affect any Obligations not arising out of or in connection with any Hedging Agreements, nor shall it affect any Obligations arising out of or in connection with any Hedging Agreements to the extent such Loan Party qualifies as an “Eligible Contract Participant” (so defined).

(b) Each Loan Party that is a Qualified ECP Guarantor at the time the Guaranty, in each case, by any Specified Loan Party, becomes effective with respect to any Swap Obligation, hereby jointly and severally, absolutely, unconditionally and irrevocably undertakes to provide such funds or other support to each Specified Loan Party with respect to such Swap Obligation as may be needed by such Specified Loan Party from time to time to honor all of its obligations under its Guaranty and the other Loan Documents in respect of such Swap Obligation (but, in each case, only up to the maximum amount of such liability that can be hereby incurred without rendering such Qualified ECP Guarantor's obligations and undertakings under this Section 11.20(b) voidable under applicable law relating to fraudulent conveyance or fraudulent transfer, and not for any greater amount). The obligations and undertakings of each Qualified ECP Guarantor under this Section shall remain in full force and effect until the Obligations have been indefeasibly paid and performed in full. Each Qualified ECP Guarantor intends this Section to constitute, and this Section shall be deemed to constitute, a guarantee of the obligations of, and a "keepwell, support, or other agreement" for the benefit of, each Specified Loan Party for all purposes of the Commodity Exchange Act.

#### 11.21 Electronic Execution of Assignments and Certain Other Documents

The words "execution," "execute," "signed," "signature," and words of like import in or related to any document to be signed in connection with this Agreement and the transactions contemplated hereby (including without limitation Assignment and Assumptions, amendments or other Committed Loan Notices, waivers and consents) shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on electronic platforms approved by the Administrative Agent, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; provided that notwithstanding anything contained herein to the contrary the Administrative Agent is under no obligation to agree to accept electronic signatures in any form or in any format unless expressly agreed to by the Administrative Agent pursuant to procedures approved by it; provided, further, without limiting the foregoing, upon the request of the Administrative Agent, any electronic signature shall be promptly followed by such manually executed counterparts.

#### 11.22 Acknowledgement and Consent to Bail-In of EEA Financial Institutions

Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Lender that is an EEA Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Lender that is an EEA Financial Institution; and

(b) the effects of any Bail-in Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

## ARTICLE XII RATIFICATION

### 12.01 General

IN ADDITION, TO INDUCE THE LENDERS AND THE ADMINISTRATIVE AGENT TO AGREE TO THE TERMS OF THIS AGREEMENT, THE BORROWER REPRESENTS AND WARRANTS THAT AS OF THE DATE OF ITS EXECUTION OF THIS AGREEMENT THERE ARE NO CLAIMS OR OFFSETS AGAINST OR RIGHTS OF RECOUPMENT WITH RESPECT TO OR DEFENSES OR COUNTERCLAIMS TO ITS OBLIGATIONS UNDER THE LOAN DOCUMENTS (INCLUDING WITHOUT LIMITATION, UNDER THE ORIGINAL CREDIT AGREEMENT, OR AGAINST ANY PRIOR AGENT) AND IN ACCORDANCE THEREWITH IT:

(a) Waiver. WAIVES ANY AND ALL SUCH CLAIMS, OFFSETS, RIGHTS OF RECOUPMENT, DEFENSES OR COUNTERCLAIMS, ARISING PRIOR TO THE DATE OF ITS EXECUTION OF THIS AGREEMENT AND

(b) Release. RELEASES AND DISCHARGES THE LENDERS AND THE ADMINISTRATIVE AGENT AND ALL PRIOR AGENTS AND THEIR OFFICERS, DIRECTORS, EMPLOYEES, AGENTS AND AFFILIATES (COLLECTIVELY THE "RELEASED PARTIES") FROM ANY AND ALL LIABILITIES, CLAIMS, CAUSES OF ACTION, IN LAW OR EQUITY, WHICH THE BORROWER OR ANY LOAN PARTY OR ANY OF THEIR SUBSIDIARIES MAY HAVE AGAINST ANY RELEASED PARTY ARISING PRIOR TO THE DATE HEREOF IN CONNECTION WITH THE LOAN DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED THEREBY.



12.02 Reference to Agreement

Each of the Loan Documents, including the Original Credit Agreement, the Notes and any and all other agreements, documents, or instruments now or hereafter executed and delivered pursuant to the terms hereof or pursuant to the terms of the Original Credit Agreement, as amended hereby, are hereby amended so that any reference in such Loan Documents to the Original Credit Agreement shall mean a reference to the Original Credit Agreement, and as further amended hereby.

12.03 Entire Agreement

This Agreement embodies the entire agreement among the parties hereto with respect to the subject matter thereof, and supersedes any and all prior representations and understandings, whether written or oral, relating to this amendment. There are no oral agreements among the parties hereto with respect to the subject matter hereof.

*[ The remainder of this page is intentionally left blank . ]*

*[ Signature page follows ]*

*IN WITNESS WHEREOF*, the parties hereto have caused this Agreement to be duly executed as of the date first above written.

HARVARD BIOSCIENCE, INC.

By: /s/ Robert Gagnon

Name: Robert Gagnon

Title: Chief Financial Officer

BANK OF AMERICA, N.A., AS  
Administrative Agent

By: /s/ Denise Jones  
Name: Denise Jones  
Title: Vice President

BANK OF AMERICA, N.A., AS A LENDER AND  
L/C Issuer

By: /s/ Peter McCarthy  
Name: Peter McCarthy  
Title: SVP

BROWN BROTHERS HARRIMAN & CO.

By: /s/ Daniel G. Head, Jr.  
Name: Daniel G. Head, Jr.  
Title: SVP

**Schedule 2.01**  
**Commitments and Applicable Percentages**

<u>Lender</u>	<u>Revolving Credit Commitment</u>	<u>Applicable Percentage</u>
Bank of America, N.A.	\$17,500,000.00	70.000000000%
Brown Brothers Harriman & Co.	\$7,500,000.00	30.000000000%
	<b>\$25,000,000.00</b>	<b>100.000000000%</b>

<u>Lender</u>	<u>Term Commitment</u>	<u>Applicable Percentage</u>
Bank of America, N.A.	\$9,800,000.00	70.000000000%
Brown Brothers Harriman & Co.	\$4,200,000.00	30.000000000%
	<b>\$14,000,000.00</b>	<b>100.000000000%</b>

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FORM OF COMMITTED LOAN NOTICE

Date: \_\_\_\_\_, \_\_\_\_\_

To: Bank of America, N.A., as Administrative Agent

Ladies and Gentlemen:

Reference is made to that certain Third Amended and Restated Credit Agreement, dated as of April [ ], 2017, (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the "Agreement"; the terms defined therein being used herein as therein defined), among Harvard Bioscience, Inc., a Delaware corporation, (the "Borrower"), the Lenders from time to time party thereto, and Bank of America, N.A., as Agent.

The undersigned hereby requests (select one):

On \_\_\_\_\_ (a Business Day):

A Revolving Credit Borrowing (if requesting a Revolving Credit Borrowing, item 5 below must be completed) in the amount of \$\_\_\_\_\_.

A Term Borrowing (for initial advance only) in the amount of \$\_\_\_\_\_.

A Borrowing of Eurodollar Rate Loans in the amount of \$\_\_\_\_\_.

A Borrowing of LIBOR Daily Floating Rate Loans in the amount of \$\_\_\_\_\_.

A conversion of Term Loans from [ ] to [ ]

A conversion of Revolving Credit Loans from [ ] to [ ]

A continuation of Eurodollar Rate Loans:

Continuation under the Revolving Credit Facility

Continuation under the Term Facility

1. On \_\_\_\_\_ (a Business Day).

2. In the amount of \$ \_\_\_\_\_



3. Comprised of \_\_\_\_\_  
[Type of Loan requested]

4. For Eurodollar Rate Loans: with an Interest Period of \_\_\_\_ months.

5. For Revolving Credit Loans: The Revolving Credit Borrowing requested herein complies with the proviso to the first sentence of Section 2.01(b) of the Agreement.

The Borrower hereby represents and warrants that the conditions specified in Section 4.02 of the Agreement shall be satisfied on and as of the date of the proposed Borrowing.

HARVARD BIOSCIENCE, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

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**[FORM OF] AMENDED AND RESTATED TERM NOTE**

\$[\_\_\_\_\_]00

Initial Issuance Date: March 29, 2013  
Restated: April [\_\_\_], 2017

FOR VALUE RECEIVED, the undersigned (the "Borrower"), hereby promises to pay to [\_\_\_\_\_] or registered assigns (the "Lender"), in accordance with the provisions of the Agreement (as hereinafter defined), the principal amount of the Term Loan from time to time made by the Lender to the Borrower under that certain Third Amended and Restated Credit Agreement, dated as of April [\_\_\_], 2017 (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the "Agreement," the terms defined therein being used herein as therein defined), among the Borrower, the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent.

The Borrower promises to pay interest on the unpaid principal amount of each Term Loan from the date of such Loan until such principal amount is paid in full, at such interest rates and at such times as provided in the Agreement. All payments of principal and interest shall be made to the Administrative Agent for the account of the Lender in Dollars in immediately available funds at the Administrative Agent's Office. If any amount is not paid in full when due hereunder, such unpaid amount shall bear interest, to be paid upon demand, from the due date thereof until the date of actual payment (and before as well as after judgment) computed at the per annum rate set forth in the Agreement.

This Amended and Restated Term Note (the "Note") is one of the Term Notes referred to in the Agreement, is entitled to the benefits thereof and may be prepaid in whole or in part subject to the terms and conditions provided therein. This Amended and Restated Term Note is also entitled to the benefits of the Guaranty. Upon the occurrence and continuation of one or more of the Events of Default specified in the Agreement, all amounts then remaining unpaid on this Amended and Restated Term Note shall become, or may be declared to be, immediately due and payable all as provided in the Agreement. Term Loans made by the Lender shall be evidenced by one or more loan accounts or records maintained by the Lender in the ordinary course of business. The Lender may also attach schedules to this Term Note and endorse thereon the date, amount and maturity of its Amended and Restated Term Loans and payments with respect thereto.

This Amended and Restated Term Note amends, restates and supersedes, but does not, and is not intended to and shall not extinguish or cancel the indebtedness (including, but not limited to, all accrued but unpaid interest thereon) evidenced by the Term Note dated March 29, 2013 (the "Original Note") made by the Borrower, jointly and severally, in favor of the Lender. This Amended and Restated Term Note is not a novation or discharge of the terms and provisions of the Borrower under the Original Note or under any Loan Document.

The Borrower, for itself, its successors and assigns, hereby waives diligence, presentment, protest and demand and notice of protest, demand, dishonor and non-payment of this Amended and Restated Term Note.

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THIS NOTE IS SIGNED AS A SEALED INSTRUMENT AND SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF MASSACHUSETTS.

HARVARD BIOSCIENCE, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

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[FORM OF] THIRD AMENDED AND RESTATED REVOLVING CREDIT NOTE

\$[\_\_\_\_\_]00

Initial Issuance Date: November 21, 2003  
Restated: August 7, 2009  
Restated: March 29, 2013  
Restated: April [\_\_\_], 2017

FOR VALUE RECEIVED, the undersigned (the "Borrower"), hereby promises to pay to [\_\_\_\_\_] or registered assigns (the "Lender"), in accordance with the provisions of the Agreement (as hereinafter defined), the principal amount of each Revolving Credit Loan from time to time made by the Lender to the Borrower under that certain Third Amended and Restated Credit Agreement, dated as of April [\_\_\_], 2017 (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the "Agreement," the terms defined therein being used herein as therein defined), among the Borrower, the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent.

The Borrower promises to pay interest on the unpaid principal amount of each Revolving Credit Loan from the date of such Loan until such principal amount is paid in full, at such interest rates and at such times as provided in the Agreement. All payments of principal and interest shall be made to the Administrative Agent for the account of the Lender in Dollars in immediately available funds at the Administrative Agent's Office. If any amount is not paid in full when due hereunder, such unpaid amount shall bear interest, to be paid upon demand, from the due date thereof until the date of actual payment (and before as well as after judgment) computed at the per annum rate set forth in the Agreement.

This Third Amended and Restated Revolving Credit Note (the "Note") is one of the Revolving Credit Notes referred to in the Agreement, is entitled to the benefits thereof and may be prepaid in whole or in part subject to the terms and conditions provided therein. This Third Amended and Restated Revolving Credit Note is also entitled to the benefits of the Guaranty. Upon the occurrence and continuation of one or more of the Events of Default specified in the Agreement, all amounts then remaining unpaid on this Third Amended and Restated Revolving Credit Note shall become, or may be declared to be, immediately due and payable all as provided in the Agreement. Revolving Credit Loans made by the Lender shall be evidenced by one or more loan accounts or records maintained by the Lender in the ordinary course of business. The Lender may also attach schedules to this Third Amended and Restated Revolving Credit Note and endorse thereon the date, amount and maturity of its Revolving Credit Loans and payments with respect thereto.

This Third Amended and Restated Revolving Credit Note amends, restates and supersedes, but does not, and is not intended to and shall not extinguish or cancel the indebtedness (including, but not limited to, all accrued but unpaid interest thereon) evidenced by the Revolving Credit Note dated November 21, 2003, as amended and restated by that certain Amended and Restated Revolving Credit Note dated August 7, 2009, as amended and restated by that certain Second Amended and Restated Revolving Credit Note dated March 29, 2013 (the "Original Note") made by the Borrower, jointly and severally, in favor of the Lender. This Third Amended and Restated Revolving Promissory Note is not a novation or discharge of the terms and provisions of the Borrower under the Original Note or under any Loan Document.

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The Borrower, for itself, its successors and assigns, hereby waives diligence, presentment, protest and demand and notice of protest, demand, dishonor and non-payment of this Third Amended and Restated Revolving Credit Note.

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THIS NOTE IS SIGNED AS A SEALED INSTRUMENT AND SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF MASSACHUSETTS.

HARVARD BIOSCIENCE, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

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FORM OF COMPLIANCE CERTIFICATE

Financial Statement Date: \_\_\_\_\_, \_\_\_\_\_

To: Bank of America, N.A., as Administrative Agent

Ladies and Gentlemen:

Reference is made to that certain Third Amended and Restated Credit Agreement, dated as of April [ ], 2017 (as amended, restated, extended, supplemented or otherwise modified in writing from time to time, the "Agreement," the terms defined therein being used herein as therein defined), among Harvard Bioscience, Inc., a Delaware corporation (the "Borrower"), the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent.

The undersigned Responsible Officer hereby certifies as of the date hereof that he/she is the \_\_\_\_\_ of the Borrower, and that, as such, he/she is authorized to execute and deliver this Certificate to the Administrative Agent on the behalf of the Borrower, and that:

*[Use following paragraph 1 for fiscal year-end financial statements]*

1. The Borrower has delivered (i) the year-end audited financial statements required by Section 6.01(a) of the Agreement for the fiscal year of the Borrower ended as of the above date, together with the report and opinion of an independent certified public accountant required by such section and (ii) the consolidating balance sheet of the Borrower and its Subsidiaries as at the end of such fiscal year and the related consolidating statements of income or operations, shareholders' equity and cash flows for such fiscal year. Such consolidating statements are fairly stated in all material respects when considered in relation to the consolidated financial statements of the Borrower and its Subsidiaries.

*[Use following paragraph 1 for fiscal quarter-end financial statements]*

1. The Borrower has delivered the unaudited financial statements required by Section 6.01(b) of the Agreement for the fiscal quarter of the Borrower ended as of the above date and the related consolidated and consolidating statements of income or operations, changes in shareholders' equity, and cash flows for such fiscal quarter. Such consolidated financial statements fairly present in all material respects the financial condition, results of operations and cash flows of the Borrower and its Subsidiaries in accordance with GAAP as at such date and for such period, subject only to normal year-end audit adjustments and the absence of footnotes.

2. The undersigned has reviewed and is familiar with the terms of the Agreement and has made, or has caused to be made under his/her supervision, a detailed review of the transactions and condition (financial or otherwise) of the Borrower during the accounting period covered by such financial statements.

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3. A review of the activities of the Borrower during such fiscal period has been made under the supervision of the undersigned with a view to determining whether during such fiscal period the Borrower performed and observed all its Obligations under the Loan Documents, and

[select one:]

to the knowledge of the undersigned, during such fiscal period the Borrower performed and observed each covenant and condition of the Loan Documents applicable to it, and no Default has occurred and is continuing.

--or--

to the knowledge of the undersigned, the following covenants or conditions have not been performed or observed and the following is a list of each such Default that has occurred and is continuing and its nature and status:

4. The representations and warranties of the Borrower contained in Article V of the Agreement and all representations and warranties of any Guarantees that are contained in any document furnished at any time under or in connection with the Loan Documents, are true and correct and for all representations and warranties which are not by their terms qualified by "materiality", in all material respects on and as of the date hereof, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they are true and correct as of such earlier date, and except that for purposes of this Compliance Certificate, the representations and warranties contained in subsections (a) and (b) of Section 5.05 of the Agreement shall be deemed to refer to the most recent statements furnished pursuant to clauses (a) and (b), respectively, of Section 6.01 of the Agreement, including the statements in connection with which this Compliance Certificate is delivered.

5. The financial covenant analyses and information set forth on Schedules 1 and 2 attached hereto are true and accurate on and as of the date of this Certificate.

IN WITNESS WHEREOF, the undersigned has executed this Certificate as of \_\_\_\_\_, \_\_\_\_\_.

HARVARD BIOSCIENCE, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

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FORM OF ASSIGNMENT AND ASSUMPTION

This Assignment and Assumption (this “ Assignment and Assumption ”) is dated as of the Effective Date set forth below and is entered into by and between the Assignor identified in item 1 below (the “ Assignor ”) and the Assignee identified in item 2 below (the “ Assignee ”). Capitalized terms used but not defined herein shall have the meanings given to them in the Third Amended and Restated Credit Agreement identified below (the “ Credit Agreement ”), receipt of a copy of which is hereby acknowledged by the Assignee. The Standard Terms and Conditions set forth in Annex 1 attached hereto are hereby agreed to and incorporated herein by reference and made a part of this Assignment and Assumption as if set forth herein in full.

For an agreed consideration, the Assignor hereby irrevocably sells and assigns to the Assignee, and the Assignee hereby irrevocably purchases and assumes from the Assignor, subject to and in accordance with the Standard Terms and Conditions and the Credit Agreement, as of the Effective Date inserted by the Administrative Agent as contemplated below (i) all of the Assignor’s rights and obligations in its capacity as a Lender under the Credit Agreement and any other documents or instruments delivered pursuant thereto to the extent related to the amount and percentage interest identified below of all of such outstanding rights and obligations of the Assignor under the respective facilities identified below and (ii) to the extent permitted to be assigned under applicable law, all claims, suits, causes of action and any other right of the Assignor (in its capacity as a Lender) against any Person, whether known or unknown, arising under or in connection with the Credit Agreement, any other documents or instruments delivered pursuant thereto or the loan transactions governed thereby or in any way based on or related to any of the foregoing, including, but not limited to, contract claims, tort claims, malpractice claims, statutory claims and all other claims at law or in equity related to the rights and obligations sold and assigned pursuant to clause (i) above (the rights and obligations sold and assigned by the Assignor to the Assignee pursuant to clauses (i) and (ii) above being referred to herein collectively as the “ Assigned Interest ”). Each such sale and assignment is without recourse to the Assignor and, except as expressly provided in this Assignment and Assumption, without representation or warranty by the Assignor.

1. Assignor[s]: \_\_\_\_\_  
\_\_\_\_\_

2. Assignee[s]: \_\_\_\_\_  
\_\_\_\_\_

[for each Assignee, indicate [Affiliate][Approved Fund] of [ *identify Lender* ]]

3. Borrower(s): \_\_\_\_\_

4. Administrative Agent: Bank of America, N.A., as the Administrative Agent under the Credit Agreement

5. Credit Agreement: Third Amended and Restated Credit Agreement, dated as of April [\_\_], 2017, among the Borrower, the Lenders from time to time party thereto, and Bank of America, N.A., as Administrative Agent



6. Assigned Interest:

<u>Assignor[s]</u>	<u>Assignee[s]</u>	<u>Facility Assigned</u>	<u>Aggregate Amount of Commitment/Loans for all Lenders</u>	<u>Amount of Commitment/Loans Assigned</u>	<u>Percentage Assigned of Commitment/Loans</u>	<u>CUSIP Number</u>
			\$ _____	\$ _____	_____ %	
			\$ _____	\$ _____	_____ %	
			\$ _____	\$ _____	_____ %	

[7. Trade Date: \_\_\_\_\_]

Effective Date: \_\_\_\_\_, 20\_\_ [TO BE INSERTED BY ADMINISTRATIVE AGENT AND WHICH SHALL BE THE EFFECTIVE DATE OF RECORDATION OF TRANSFER IN THE REGISTER THEREFOR.]

The terms set forth in this Assignment and Assumption are hereby agreed to:

ASSIGNOR  
[NAME OF ASSIGNOR]

By: \_\_\_\_\_  
Title:

ASSIGNEE  
[NAME OF ASSIGNEE]

By: \_\_\_\_\_  
Title:

Consented to and Accepted:

BANK OF AMERICA, N.A., as  
Administrative Agent

By: \_\_\_\_\_  
Title:



[ ]

**STANDARD TERMS AND CONDITIONS FOR  
ASSIGNMENT AND ASSUMPTION**

1. Representations and Warranties.

1.1. Assignor. The Assignor (a) represents and warrants that (i) it is the legal and beneficial owner of the Assigned Interest, (ii) the Assigned Interest is free and clear of any lien, encumbrance or other adverse claim and (iii) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby; and (b) assumes no responsibility with respect to (i) any statements, warranties or representations made in or in connection with the Credit Agreement or any other Loan Document, (ii) the execution, legality, validity, enforceability, genuineness, sufficiency or value of the Loan Documents or any collateral thereunder, (iii) the financial condition of the Borrower, any of its Subsidiaries or Affiliates or any other Person obligated in respect of any Loan Document or (iv) the performance or observance by the Borrower, any of its Subsidiaries or Affiliates or any other Person of any of their respective obligations under any Loan Document.

1.2. Assignee. The Assignee (a) represents and warrants that (i) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and to become a Lender under the Credit Agreement, (ii) it meets all the requirements to be an assignee under Section 15.1(b)(iii), (v) and (vi) of the Credit Agreement (subject to such consents, if any, as may be required under Section 15.1(b)(iii) of the Credit Agreement), (iii) from and after the Effective Date, it shall be bound by the provisions of the Credit Agreement as a Lender thereunder and, to the extent of [the][the relevant] Assigned Interest, shall have the obligations of a Lender thereunder, (iv) it is sophisticated with respect to decisions to acquire assets of the type represented by [the][such] Assigned Interest and either it, or the Person exercising discretion in making its decision to acquire [the][such] Assigned Interest, is experienced in acquiring assets of such type, (v) it has received a copy of the Credit Agreement, and has received or has been accorded the opportunity to receive copies of the most recent financial statements delivered pursuant to Section 5.1 thereof, as applicable, and such other documents and information as it deems appropriate to make its own credit analysis and decision to enter into this Assignment and Assumption and to purchase [the] [such] Assigned Interest, (vi) it has, independently and without reliance upon the Administrative Agent or any other Lender and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Assignment and Assumption and to purchase the Assigned Interest, and (vii) if it is a Foreign Lender, attached hereto is any documentation required to be delivered by it pursuant to the terms of the Credit Agreement, duly completed and executed by the Assignee; and (b) agrees that (i) it will, independently and without reliance upon the Administrative Agent, the Assignor or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Loan Documents, and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Loan Documents are required to be performed by it as a Lender.

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2. Payments. From and after the Effective Date, the Administrative Agent shall make all payments in respect of the Assigned Interest (including payments of principal, interest, fees and other amounts) to the Assignor for amounts which have accrued to but excluding the Effective Date and to the Assignee for amounts which have accrued from and after the Effective Date.

3. General Provisions. This Assignment and Assumption shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Assignment and Assumption may be executed in any number of counterparts, which together shall constitute one instrument. Delivery of an executed counterpart of a signature page of this Assignment and Assumption by telecopy shall be effective as delivery of a manually executed counterpart of this Assignment and Assumption. This Assignment and Assumption shall be governed by, and construed in accordance with, the law of the State of the Commonwealth of Massachusetts.

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FORM OF ADMINISTRATIVE QUESTIONNAIRE

1. Borrower or Deal Name

(a) E-mail this document with your commitment letter to: Renee Marion

E-mail address of recipient: renee.marion@baml.com

2. Legal Name of Lender of Record for Signature Page :

Markit Entity Identifier (MEI) #
Fund Manager Name (if applicable)
Legal Address from Tax Document of Lender of Record:
Country
Address
City State/Province Country

3. Domestic Funding Address:

Street Address

4. Eurodollar Funding Address:

Street Address

Suite/ Mail Code

Suite/ Mail Code

City State

City State

Postal Code Country

Postal Code Country

5. Credit Contact Information:

Syndicate level information (which may contain material non-public information about the Borrower and its related parties or their respective securities will be made available to the Credit Contact(s). The Credit Contacts identified must be able to receive such information in accordance with his/her institution's compliance procedures and applicable laws, including Federal and State securities laws.

Primary Credit Contact:

First Name
Middle Name
Last Name
Title
Street Address
Suite/Mail Code
City
State
Postal Code
Country
Office Telephone #
Office Facsimile #
Work E-Mail Address

IntraLinks/SyndTrak  
E-Mail Address \_\_\_\_\_

**Secondary Credit Contact:**

First Name \_\_\_\_\_  
Middle Name \_\_\_\_\_  
Last Name \_\_\_\_\_  
Title \_\_\_\_\_  
Street Address \_\_\_\_\_  
Suite/Mail Code \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_  
Postal Code \_\_\_\_\_  
Country \_\_\_\_\_  
Office Telephone # \_\_\_\_\_  
Office Facsimile # \_\_\_\_\_  
Work E-Mail Address \_\_\_\_\_  
IntraLinks/SyndTrak  
E-Mail Address \_\_\_\_\_

**Primary Operations Contact:**

First \_\_\_\_\_ MI \_\_ Last \_\_\_\_\_  
Title \_\_\_\_\_  
Street Address \_\_\_\_\_  
\_\_\_\_\_  
Suite/Mail Code \_\_\_\_\_  
\_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Postal Code \_\_\_\_\_ Country \_\_\_\_\_  
Telephone \_\_\_\_\_ Facsimilie \_\_\_\_\_  
\_\_\_\_\_  
E-Mail Address \_\_\_\_\_  
\_\_\_\_\_  
IntraLinks/SyndTrak E-Mail  
Address \_\_\_\_\_

**Secondary Operations Contact:**

First \_\_\_\_\_ MI \_\_ Last \_\_\_\_\_  
Title \_\_\_\_\_  
Street Address \_\_\_\_\_  
\_\_\_\_\_  
Suite/Mail Code \_\_\_\_\_  
\_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Postal Code \_\_\_\_\_ Country \_\_\_\_\_  
Telephone \_\_\_\_\_ Facsimilie \_\_\_\_\_  
\_\_\_\_\_  
E-Mail Address \_\_\_\_\_  
\_\_\_\_\_  
IntraLinks/SyndTrak E-Mail  
Address \_\_\_\_\_

*Does Secondary Operations Contact need copy of notices?* \_\_\_ YES \_\_\_ NO

**Letter of Credit Contact:**

First \_\_\_\_\_ MI \_\_ Last \_\_\_\_\_  
Title \_\_\_\_\_  
Street Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Draft Documentation Contact or Legal Counsel:**

First \_\_\_\_\_ MI \_\_ Last \_\_\_\_\_  
Title \_\_\_\_\_  
Street Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Suite/Mail Code \_\_\_\_\_ Suite/Mail Code \_\_\_\_\_  
\_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_  
Postal Code \_\_\_\_\_ Country \_\_\_\_\_ Postal Code \_\_\_\_\_ Country \_\_\_\_\_  
Telephone \_\_\_\_\_ Facsimile \_\_\_\_\_ Telephone \_\_\_\_\_ Facsimile \_\_\_\_\_  
\_\_\_\_\_  
E-Mail Address \_\_\_\_\_ E-Mail Address \_\_\_\_\_  
\_\_\_\_\_

**6. Lender's Fed Wire Payment Instructions:**

Pay to:  
Bank Name \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
ABA # \_\_\_\_\_  
\_\_\_\_\_  
City \_\_\_\_\_  
\_\_\_\_\_  
State \_\_\_\_\_  
Account # \_\_\_\_\_  
\_\_\_\_\_  
Account Name \_\_\_\_\_  
\_\_\_\_\_  
Attention \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**7. Lender's Standby Letter of Credit, Commercial Letter of Credit, and Bankers' Acceptance Fed Wire Payment Instructions (if applicable):**

Pay to:  
Bank Name \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





ABA # \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Account # \_\_\_\_\_

Account Name \_\_\_\_\_

Attention \_\_\_\_\_

Can the Lender's Fed Wire Payment Instructions in Section 6 be used? \_\_\_ YES \_\_\_ NO

**8. Lender's Organizational Structure and Tax Status**

**Please refer to the enclosed withholding tax instructions below and then complete this section accordingly:**

Lender Taxpayer Identification Number (TIN):

- \_\_\_\_\_

Tax Withholding Form Delivered to Bank of America (check applicable one):

- W-9**
 **W-8BEN**
 **W-8ECI**
 **W-8EXP**
 **W-8IMY**

**Tax Contact:**

First \_\_\_ MI \_\_\_ Last \_\_\_\_\_

Title \_\_\_\_\_

Street Address \_\_\_\_\_

Suite/ Mail Code \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Postal Code Country \_\_\_\_\_

Telephone \_\_\_\_\_ Facsimile \_\_\_\_\_

E-Mail Address \_\_\_\_\_

**NON-U.S. LENDER INSTITUTIONS**



## 1. Corporations:

If your institution is incorporated outside of the United States for U.S. federal income tax purposes, and is the beneficial owner of the interest and other income it receives, you must complete one of the following three tax forms, as applicable to your institution: a.) Form W-8BEN (Certificate of Foreign Status of Beneficial Owner), b.) Form W-8ECI (Income Effectively Connected to a U.S. Trade or Business), or c.) Form W-8EXP (Certificate of Foreign Government or Governmental Agency).

A U.S. taxpayer identification number is required for any institution submitting a Form W-8 ECI. It is also required on Form W-8BEN for certain institutions claiming the benefits of a tax treaty with the U.S. Please refer to the instructions when completing the form applicable to your institution. In addition, please be advised that U.S. tax regulations do not permit the acceptance of faxed forms. **An original tax form must be submitted.**

## 2. Flow-Through Entities

If your institution is organized outside the U.S., and is classified for U.S. federal income tax purposes as either a Partnership, Trust, Qualified or Non-Qualified Intermediary, or other non-U.S. flow-through entity, an original Form W-8IMY (Certificate of Foreign Intermediary, Foreign Flow-Through Entity, or Certain U.S. branches for United States Tax Withholding) must be completed by the intermediary together with a withholding statement. Flow-through entities other than Qualified Intermediaries are required to include tax forms for each of the underlying beneficial owners.

Please refer to the instructions when completing this form. In addition, please be advised that U.S. tax regulations do not permit the acceptance of faxed forms. **Original tax form(s) must be submitted .**

## U.S. LENDER INSTITUTIONS:

If your institution is incorporated or organized within the United States, you must complete and return Form W-9 (Request for Taxpayer Identification Number and Certification). **Please be advised that we require an original form W-9 .**

***Pursuant to the language contained in the tax section of the Credit Agreement, the applicable tax form for your institution must be completed and returned on or prior to the date on which your institution becomes a lender under this Credit Agreement. Failure to provide the proper tax form when requested will subject your institution to U.S. tax withholding.***

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## 9. Bank of America's Payment Instructions:

Pay to: Bank of America, N.A.  
ABA # 026009593  
New York, NY  
Account #  
Attn: Corporate Credit Services  
Ref:

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[FORM OF] AUTHORIZATION TO SHARE INSURANCE

TO: Insurance Agent

RE: Third Amended and Restated Credit Agreement, dated as of April [ ], 2017, by and among Harvard Bioscience, Inc., a Delaware corporation, the Lenders from time to time party thereto, and Bank of America, N.A., as Agent (as amended, modified, extended, restated, replaced, or supplemented from time to time, the "Credit Agreement"; capitalized terms used herein and not otherwise defined shall have the meanings set forth in the Credit Agreement)

DATE: [Date]

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Grantor: [Insert Applicable Loan Party Name] (the "Grantor")

Administrative Agent: Bank of America, N.A., as Administrative Agent for the Secured Parties, I.S.A.O.A., A.T.I.M.A. \* (the "Administrative Agent")  
Attn: MAC Legal Collateral Administration  
Mail Code CA4-702-02-25  
2001 Clayton Road, 2nd Floor  
Concord, CA 94520

Policy Number: [Insert Applicable Policy Number]

Insurance Company/Agent: [Insert Applicable Insurance Company/Agent] (the "Insurance Agent")

Insurance Company Address: [Insert Insurance Company's Address]

Insurance Company Telephone No.: [Insert Insurance Company's Telephone No.]

Insurance Company Fax No.: [Insert Insurance Company's Fax No.]

The Grantor hereby authorizes the Insurance Agent to send evidence of all insurance to the Agent, as may be requested by the Agent, together with requested insurance policies, certificates of insurance, declarations and endorsements.

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\* I.S.A.O.A. stands for "its successors and/or assigns." A.T.I.M.A. stands for "as their interest may appear."

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Delivery of an executed counterpart of a signature page of this Certificate by fax transmission or other electronic mail transmission (e.g. "pdf" or "tif") shall be effective as delivery of a manually executed counterpart of this Certificate.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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[GRANTOR NAME],  
a [Jurisdiction and Type of Organization]

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_



[FORM OF] U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Third Amended and Restated Credit Agreement dated as of April [ ], 2017 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Harvard Bioscience, Inc . , a Delaware corporation ("the Borrower"), the Lenders from time to time party thereto, and Bank of America, N.A., as administrative agent (the "Administrative Agent").

Pursuant to the provisions of Section 3.01(c) of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Borrower with a certificate of its non-U.S. Person status on IRS Form W-8BENE (or W-8BEN, as applicable). By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent, and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF LENDER]

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_, 20 [ ]



[FORM OF] U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Third Amended and Restated Credit Agreement dated as of April [ ], 2017 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Harvard Bioscience, Inc., a Delaware corporation ("the Borrower"), the Lenders from time to time party thereto, and Bank of America, N.A., as administrative agent (the "Administrative Agent").

Pursuant to the provisions of Section 3.01(c) of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. Person status on IRS Form W-8BENE (or W-8BEN, as applicable). By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing, and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_, 20 [ ]



[FORM OF] U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Third Amended and Restated Credit Agreement dated as of April [ ], 2017 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Harvard Bioscience, Inc., a Delaware corporation ("the Borrower"), the Lenders from time to time party thereto, and Bank of America, N.A., as administrative agent (the "Administrative Agent").

Pursuant to the provisions of Section 3.01(c) of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BENE (or W-8BEN, as applicable) or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BENE (or W-8BEN, as applicable) from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_, 20 [ ]





[FORM OF] U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Third Amended and Restated Credit Agreement dated as of April [ ], 2017 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Harvard Bioscience, Inc . , a Delaware corporation ("the Borrower"), the Lenders from time to time party thereto, and Bank of America, N.A., as administrative agent (the "Administrative Agent").

Pursuant to the provisions of Section 3.01(c) of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to this Credit Agreement or any other Loan Document, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Borrower with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BENE (or W-8BEN, as applicable) or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BENE (or W-8BEN, as applicable) from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent, and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF LENDER]

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_, 20 [ ]

**Certification**

I, Robert E. Gagnon, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Harvard Bioscience, Inc.;
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: May 5, 2017

/s/ ROBERT E. GAGNON  
Robert E. Gagnon  
Chief Financial Officer

**Certification**

I, Jeffrey A. Duchemin, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Harvard Bioscience, Inc.;
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: May 5, 2017

/s/ JEFFREY A. DUCHEMIN  
\_\_\_\_\_  
Jeffrey A. Duchemin  
Chief Executive Officer

**CERTIFICATION OF PERIODIC FINANCIAL REPORT  
PURSUANT TO 18 U.S.C. SECTION 1350**

The undersigned officer of Harvard Bioscience, Inc. (the “Company”) hereby certifies to his knowledge that the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2017 (the “Report”) to which this certification is being furnished as an exhibit, as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350 and Item 601(b)(32) of Regulation S-K (“Item 601(b)(32)”) promulgated under the Securities Act of 1933, as amended (the “Securities Act”), and the Exchange Act. In accordance with clause (ii) of Item 601(b)(32), this certification (A) shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and (B) shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

Date: May 5, 2017

/s/ ROBERT E. GAGNON

\_\_\_\_\_  
Name: Robert E. Gagnon

Title: Chief Financial Officer

**CERTIFICATION OF PERIODIC FINANCIAL REPORT  
PURSUANT TO 18 U.S.C. SECTION 1350**

The undersigned officer of Harvard Bioscience, Inc. (the “Company”) hereby certifies to his knowledge that the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2017 (the “Report”) to which this certification is being furnished as an exhibit, as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350 and Item 601(b)(32) of Regulation S-K (“Item 601(b)(32)”) promulgated under the Securities Act of 1933, as amended (the “Securities Act”), and the Exchange Act. In accordance with clause (ii) of Item 601(b)(32), this certification (A) shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and (B) shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

Date: May 5, 2017

/s/ JEFFREY A. DUCHEMIN

\_\_\_\_\_  
Name: Jeffrey A. Duchemin

Title: Chief Executive Officer