# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## **SCHEDULE 13G**

(Rule 13d-102)

Information Statement Pursuant to Rules 13d-1 and 13d-2 Under the Securities Exchange Act of 1934 (Amendment No. )\*

# PQ GROUP HOLDINGS INC.

(Name of Issuer)

Common Stock, par value \$0.01 per share (Title of Class of Securities)

73943T 103 (CUSIP Number)

December 31, 2017 (Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this schedule is filed:

☐ Rule 13d-1(b)

☐ Rule 13d-1(c)

☑ Rule 13d-1(d)

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1.	NAME	OF REPORTING PERSON
	CCMP	Capital Investors III, L.P.
2.	CHECK (a) □	THE APPROPRIATE BOX IF A MEMBER OF A GROUP*  (b) □
	(a) 🗆	(0) 🖾
3.	SEC US	E ONLY
4.	CITIZE	NSHIP OR PLACE OF ORGANIZATION
	Delawa	
		5. SOLE VOTING POWER
NUMBE	R OF	0
SHAR	ES	6. SHARED VOTING POWER
BENEFICI OWNED		29,370,897*
EACI REPORT		7. SOLE DISPOSITIVE POWER
PERSO	ON	
WITI	H	8. SHARED DISPOSITIVE POWER
		29,370,897*
9.	AGGRE	GATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	29,370,8	397*
10.	CHECK	IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
11.	PERCE	NT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)
	21.7%	
12.		F REPORTING PERSON
	DNI	

<sup>\*</sup> See Item 4

13.	NAME	OF R	EPORTING PERSON				
	ССМР	CCMP Capital Investors III (Employee), L.P.					
14.	CHECK	THE	E APPROPRIATE BOX IF A MEMBER OF A GROUP*				
	(a) 🗆	(b)					
15.	SEC US	E ON	ЛУ				
13.	SEC CS	LOI					
16.	CITIZE	NSHI	P OR PLACE OF ORGANIZATION				
	Delawa	re					
		17.	SOLE VOTING POWER				
NUMBE: SHAR		18.	SHARED VOTING POWER				
BENEFICI	ALLY						
OWNED EAC		10	2,977,037*  SOLE DISPOSITIVE POWER				
REPORT		19.	SOLE DISPOSITIVE POWER				
PERSO			0				
WITI	п	20.	SHARED DISPOSITIVE POWER				
			2,977,037*				
21.	AGGRE	GAT	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	2.977.037*						
22.	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES						
23.	DEDCENIT OF CLASS DEDDESENTED DV AMOUNT DUDOW (0)						
۵۶.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)						
	2.2%						
24.	TYPE C	F RE	PORTING PERSON				
	PN	PN PN					

<sup>\*</sup> See Item 4

25.	NAME OF REPORTING PERSON					
		Capital Investors III (AV-7), L.P.				
26.		THE APPROPRIATE BOX IF A MEMBER OF A GROUP*  (b) ⊠				
	(a) ⊔	(0) 🖾				
27.	SEC US	E ONLY				
27.	SEC CS					
28.	CITIZE	NSHIP OR PLACE OF ORGANIZATION				
	Delawai	re				
		29. SOLE VOTING POWER				
NUMBE	R OF	0				
SHAR		30. SHARED VOTING POWER				
BENEFICI OWNED		8,954,565*				
EAC		31. SOLE DISPOSITIVE POWER				
REPORT		SI. SOLE DISTORIAL TOWER				
PERSO	-	0				
WIT	Н	32. SHARED DISPOSITIVE POWER				
33.	AGGDE	8,954,565*  GATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
33.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	8,954,565*					
34.	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES					
35.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)					
33.	TERCENT OF CEASS REFRESENTED BY AWOUNT IN ROW (7)					
	6.6%					
36.	TYPE O	F REPORTING PERSON				
	PN	PN				

<sup>\*</sup> See Item 4

37.	NAME (	OF R	EPORTING PERSON
	ССМР	Capit	tal Investors III (AV-8), L.P.
38.	CHECK	THE	APPROPRIATE BOX IF A MEMBER OF A GROUP*
	(a) 🗆	(b)	
39.	SEC US	E ON	ILY
40.	CITIZE	JOIT	P OR PLACE OF ORGANIZATION
40.	CITIZEI	иэпі	FOR PLACE OF ORDANIZATION
	Delawai		
		41.	SOLE VOTING POWER
NUMBE	R OF		0
SHAR	ES	42.	SHARED VOTING POWER
BENEFICI OWNED			506,610*
OWNED BY EACH REPORTING		43.	SOLE DISPOSITIVE POWER
PERSO	ON		0
WITI	Н	44.	SHARED DISPOSITIVE POWER
			506.610*
45.	AGGRE	GAT	,
	506,610	k	
46.	,	506,610* GGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  06,610* HECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
47.	PERCE	O TV	F CLASS REPRESENTED BY AMOUNT IN ROW (9)
	0.4%		
48.		F RE	PORTING PERSON
	DN		

<sup>\*</sup> See Item 4

49.	NAME (	OF R	EPORTING PERSON			
	CCMP	Capit	tal Investors III (AV-9), L.P.			
50.	CHECK	THE	E APPROPRIATE BOX IF A MEMBER OF A GROUP*			
	(a) 🗆	(b)				
51.	SEC US	E ON	īLY			
52.	CITIZE	NSHI	IP OR PLACE OF ORGANIZATION			
02.						
	Delawai		GOVE VIOREN IN DOVINE			
		53.	SOLE VOTING POWER			
NUMBER OF SHARES BENEFICIALLY OWNED BY			0			
		54.	SHARED VOTING POWER			
			10,127,880*			
EACH		55.	SOLE DISPOSITIVE POWER			
REPORT PERSO						
WIT	Н	56.	SHARED DISPOSITIVE POWER			
			10,127,880*			
57.	AGGRE	GAT	TE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	10,127,8	80*				
58.			HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES			
50	DED GEN	TITE O	D GL 4 GG DERDEGENTED DV 4 MOUNTE DI DOW (A)			
59.	PERCE	NT O	F CLASS REPRESENTED BY AMOUNT IN ROW (9)			
	7.5%					
60.	TYPE O	F RE	PORTING PERSON			
	DN					

<sup>\*</sup> See Item 4

61.	NAME	OF R	EPORTING PERSON
	ССМР	Capit	tal Investors III (AV-10), L.P.
62.	CHECK	THE	APPROPRIATE BOX IF A MEMBER OF A GROUP*
	(a)	(b)	
63.	SEC US	E ON	ILY
64.	CITIZE	IHZV	P OR PLACE OF ORGANIZATION
0			
	Delawai		
		65.	SOLE VOTING POWER
NUMBE	R OF		0
SHAR	ES	66.	SHARED VOTING POWER
			663,600*
EACH		67.	SOLE DISPOSITIVE POWER
BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH			0
WITI	Н	68.	SHARED DISPOSITIVE POWER
			663,600*
69.	AGGRE	GAT	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	663,600	k	
70.	/		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
71.		NT O	F CLASS REPRESENTED BY AMOUNT IN ROW (9)
	0.5%		
72.		F RE	PORTING PERSON
	DNI		

<sup>\*</sup> See Item 4

73.	NAME (	OF R	EPORTING PERSON		
			al Associates III, L.P.		
74.	CHECK (a) □		APPROPRIATE BOX IF A MEMBER OF A GROUP*  □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		
75.	SEC US	E ON	LY		
76.	CITIZE	NSHI	P OR PLACE OF ORGANIZATION		
	Delawai				
		77.	SOLE VOTING POWER		
NUMBE	R OF		0		
SHAR BENEFICI		78.	SHARED VOTING POWER		
OWNED	BY		52,600,589*		
EACI REPORT		79.	SOLE DISPOSITIVE POWER		
PERSO WITI			0		
WIII	.1	80.	SHARED DISPOSITIVE POWER		
			52,600,589*		
81.	AGGRE	GAT	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
	52,600,589*				
82.	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES				
83.	PERCE	O TV	F CLASS REPRESENTED BY AMOUNT IN ROW (9)		
	38.9%				
84.	TYPE O	F RE	PORTING PERSON		
	DN				

<sup>\*</sup> See Item 4

85.	NAME	OF R	EPORTING PERSON
	ССМР	Capit	tal Associates III GP, LLC
86.	CHECK	THE	E APPROPRIATE BOX IF A MEMBER OF A GROUP*
	(a) 🗆	(b)	) $oxed{\boxtimes}$
87.	SEC US	E ON	VLY
00	CITIZE	MOTH	IN ON DU ACE OF ONG ANIZATION
88.	CITIZE	NSHI	IP OR PLACE OF ORGANIZATION
	Delawai		
		89.	SOLE VOTING POWER
NUMBE	D OE		0
SHAR	ES	90.	SHARED VOTING POWER
BENEFICI OWNED			52,600,589*
EAC	Н	91.	SOLE DISPOSITIVE POWER
REPORT PERSO			
WITI		92.	SHARED DISPOSITIVE POWER
93.	A CCDE	CAT	52,600,589* E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
93.	AGGRE	GAI	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	52,600,5		
94.	CHECK	IF T	HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
95.	PERCE	NT O	F CLASS REPRESENTED BY AMOUNT IN ROW (9)
	38.9%		
96.		F RE	EPORTING PERSON
	00		

<sup>\*</sup> See Item 4

97.	NAME OF REPORTING PERSON						
		CCMP Capital, LP					
98.	CHECK (a) □	THE A	APPROPRIATE BOX IF A MEMBER OF A GROUP*  □				
	. ,	. ,					
99.	SEC USI	E ONL	Y				
100.	CITIZEN	NSHIP	OR PLACE OF ORGANIZATION				
	Delawar						
		101.	SOLE VOTING POWER				
NUMBEI	R OF		0				
SHARI BENEFICI		102.	SHARED VOTING POWER				
OWNED	BY		61,962,767*				
EACH REPORT		103.	SOLE DISPOSITIVE POWER				
PERSC WITH			0				
,,,,,,		104.	SHARED DISPOSITIVE POWER				
			61,962,767*				
105.	AGGRE	GATE	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	61,962,7						
106.	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES						
107.	PERCEN	NT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)				
	45.8%						
108.	TYPE O	F REP	ORTING PERSON				
	PN	PN PN					

<sup>\*</sup> See Item 4

109.	NAME (	OF REI	PORTING PERSON
	ССМР	Capita	I GP, LLC
110.	CHECK	THE A	APPROPRIATE BOX IF A MEMBER OF A GROUP*
	(a) 🗆	(b)	
111.	SEC US	E ONL	Y
112.	CITIZEN	NSHIP	OR PLACE OF ORGANIZATION
	Delawar	·e	
		113.	SOLE VOTING POWER
NII IMPE	D OF		0
NUMBEI SHARI		114.	SHARED VOTING POWER
BENEFICI OWNED			61,962,767*
EACI	Η	115.	SOLE DISPOSITIVE POWER
REPORT PERSO			0
WITH	·I	116.	SHARED DISPOSITIVE POWER
			61,962,767*
117.	AGGRE	GATE	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	61,962,7	67*	
118.	CHECK	IF TH	E AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
119.	PERCEN	NT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)
	45.8%		
120.	TYPE O	F REP	ORTING PERSON
	00		

<sup>\*</sup> See Item 4

121.	NAME OF REPORTING PERSON					
122	Quartz Co-Invest, L.P.					
122.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*  a) □ (b) ⊠					
123.	EC USE ONLY					
124.	CITIZENSHIP OR PLACE OF ORGANIZATION					
	Delaware					
	125. SOLE VOTING POWER					
NUMBE						
SHAR	126. SHARED VOTING POWER					
BENEFIC						
OWNEI EAC	9,362,178*  127. SOLE DISPOSITIVE POWER					
REPORT						
PERSO						
WIT	128. SHARED DISPOSITIVE POWER					
	9,362,178*					
129.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	9.362,178*					
130.	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES					
131.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)					
151.	EROBIT OF CERIOURE RESERVED BY AMOUNT IN ROW (7)					
	.9%					
132.	YPE OF REPORTING PERSON					
	PN					

<sup>\*</sup> See Item 4

COSII 110. 73	7 13 1 103	150	1 age 13 01 10 1 ages
133.	NAME	OF REPORTING PERSON	
	ССМР	Co-Invest III A GP, LLC	
134.		THE APPROPRIATE BOX IF A MEMBER OF A GROUP*  (b) ⊠	
135.	SEC US	E ONLY	
136.	CITIZE	NSHIP OR PLACE OF ORGANIZATION	
	Delawa	re	
		137. SOLE VOTING POWER	
NIIMI	BER OF	0	
SHA	ARES	138. SHARED VOTING POWER	
	ICIALLY ED BY	9,362,178*	
	ACH RTING	139. SOLE DISPOSITIVE POWER	
PER	SON ITH	0	
W.	1111	140. SHARED DISPOSITIVE POWER	
		9,362,178*	
141.	AGGRE	GATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	9,362,1		
142.	CHECK	IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
143.	PERCE	NT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)	
	6.9%		
144.	TYPE C	F REPORTING PERSON	
	00		

<sup>\*</sup> See Item 4

#### Item 1(a). Name of Issuer

PQ Group Holdings Inc. (the "Issuer")

## Item 1(b). Address of Issuer's Principal Executive Offices

300 Lindenwood Drive Valleybrooke Corporate Center Malvern, Pennsylvania 19355.

#### Item 2. (a) Name of Person Filing

This statement is filed by the entities listed below, all of whom together are referred to herein as the "Reporting Persons":

- (i) CCMP Capital Investors III, L.P. ("CCMP Capital Investors");
- (ii) CCMP Capital Investors III (Employee), L.P. ("CCMP Employee");
- (iii) CCMP Capital Investors III (AV-7), L.P. ("CCMP AV-7");
- (iv) CCMP Capital Investors III (AV-8), L.P. ("CCMP AV-8");
- (v) CCMP Capital Investors III (AV-9), L.P. ("CCMP AV-9");
- (vi) CCMP Capital Investors III (AV-10), L.P. ("CCMP AV-10" and, together with CCMP Capital Investors, CCMP Employee, CCMP AV-7, CCMP AV-8, and CCMP AV-9, the "CCMP Capital Funds");
- (vii) CCMP Capital Associates III, L.P. ("CCMP Capital Associates");
- (viii) CCMP Capital Associates III GP, LLC ("CCMP Capital Associates GP");
- (ix) CCMP Capital, LP ("CCMP Capital");
- (x) CCMP Capital GP, LLC ("CCMP Capital GP");
- (xi) Quartz Co-Invest, L.P. ("Quartz"); and
- (xii) CCMP Co-Invest III A GP, LLC ("CCMP Co-Invest GP").

The Reporting Persons have entered into a Joint Filing Agreement, dated February 13, 2018, pursuant to which the Reporting Persons have agreed to file this statement jointly in accordance with the provisions of Rule 13d-1(k)(1) under the Act.

## (b) Address of Principal Business Office or, if none, Residence

c/o CCMP Capital Advisors, LP 277 Park Avenue New York, New York 10172.

## (c) Citizenship

All Reporting Persons: Delaware

### (d) Title of Class of Securities

Common Stock, par value \$0.01 per share (the "Common Stock")

## (e) CUSIP Number

73943T 103.

 in this stitute is the pursuant to 332 total 1(0), or 2 total 2(0) or (0), enter whether the person ming is at
Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E).
An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F).
A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G).
A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813).
A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C.80a-3).
A non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J).
Group, in accordance with §240.13d-1(b)(1)(ii)(K).

If this statement is filed pursuant to 88 240 13d-1(h) or 240 13d-2(h) or (c) check whether the person filing is a:

#### Item 4. Ownership

Item 3

#### (a) Amount beneficially owned

As of December 31, 2017, the Reporting Persons may be deemed to beneficially own in the aggregate 61,962,767 shares of the Issuer's Common Stock, representing, in the aggregate, approximately 45.8% of the Issuer's total Common Stock outstanding. The percentage of the Issuer's outstanding shares of Common Stock held by the Reporting Persons is based on 135,240,826 shares of Common Stock outstanding as of November 10, 2017, as reported in the Issuer's quarterly report on Form 10-Q for the quarterly period ended September 30, 2017, filed with the Securities and Exchange Commission on November 14, 2017.

The general partner of each of the CCMP Capital Funds is CCMP Capital Associates. The general partner of CCMP Capital Associates is CCMP Capital Associates GP. As a result, each of CCMP Capital Associates and CCMP Capital Associates GP may be deemed to share beneficial ownership with respect to the Common Stock held by the CCMP Capital Funds.

The general partner of Quartz is CCMPCo-Invest GP. As a result, CCMPCo-Invest GP may be deemed to share beneficial ownership with respect to the Common Stock held by Quartz.

CCMP Capital Associates GP and CCMP Co-Invest GP are each wholly owned by CCMP Capital.

The general partner of CCMP Capital is CCMP Capital GP. CCMP Capital GP ultimately exercises voting and dispositive power over the securities held by the CCMP Capital Funds and Quartz. As a result, each of CCMP Capital and CCMP Capital GP may be deemed to share beneficial ownership with respect to the Common Stock held by the CCMP Capital Funds and Quartz.

CCMP Capital Associates and CCMP Capital Associates GP each may be deemed to beneficially own 52,600,589 shares of the Issuer's Common Stock, consisting of (i) 29,370,897 shares held by CCMP Capital Investors, (ii) 2,977,037 shares held by CCMP Employee, (iii) 8,954,565 shares held by CCMP AV-7, (iv) 506,610 shares held by CCMP AV-8, (v) 10,127,880 shares held by CCMP AV-9, and (vi) 663,600 shares held by CCMP AV-10.

CCMP Co-Invest GP may be deemed to beneficially own 9,362,178 shares of the Issuer's Common Stock held by Quartz.

CCMP Capital and CCMP Capital GP each may be deemed to beneficially own 61,962,767 shares of the Issuer's Common Stock, consisting of (i) 29,370,897 shares held by CCMP Capital Investors, (ii) 2,977,037 shares held by CCMP Employee, (iii) 8,954,565 shares held by CCMP AV-7, (iv) 506,610 shares held by CCMPAV-8, (v) 10,127,880 shares held by CCMP AV-9, (vi) 663,600 shares held by CCMPAV-10, and (vii) 9,362,178 shares held by Quartz.

#### (b) Percent of Class

The responses of the Reporting Persons to Row 11 of each of the cover pages to this Schedule 13G are hereby incorporated by reference. The percentages represent the percentage of the Issuer's Common Stock beneficially owned by the Reporting Persons.

## (c) Number of shares as to which such person has:

- (i) Sole power to vote or to direct the vote: The responses of the Reporting Persons to Row 5 of each of the cover pages to this Schedule 13G are hereby incorporated by reference.
- (ii) Shared power to vote or to direct the vote: The responses of the Reporting Persons to Row 6 of each of the cover pages to this Schedule 13G are hereby incorporated by reference. See also Item 4(a) above.
- (iii) Sole power to dispose or to direct the disposition of: The responses of the Reporting Persons to Row 7 of each of the cover pages to this Schedule 13G are hereby incorporated by reference.
- (iv) Shared power to dispose or to direct the disposition of: The responses of the Reporting Persons to Row 8 of each of the cover pages to this Schedule 13G are hereby incorporated by reference. See also Item 4(a) above.

## Item 5. Ownership of Five Percent or Less of a Class

Not applicable.

#### Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not applicable.

#### Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company or Control Person:

Not applicable.

## Item 8. Identification and Classification of Members of the Group

Not applicable.

## Item 9. Notice of Dissolution of Group

Not applicable.

## Item 10. Certification

Not applicable.

## **SIGNATURES**

After reasonable inquiry and to the best of my knowledge and belief, the undersigned certifies that the information set forth in this Statement is true, complete and correct.

Dated: February 13, 2018

CCMP CAPITAL INVESTORS III, L.P.
CCMP CAPITAL INVESTORS III (EMPLOYEE), L.P.
CCMP CAPITAL INVESTORS III (AV-7), L.P.
CCMP CAPITAL INVESTORS III (AV-8), L.P.
CCMP CAPITAL INVESTORS III (AV-9), L.P.
CCMP CAPITAL INVESTORS III (AV-10), L.P.

By: CCMP Capital Associates III, L.P., its general partner By: CCMP Capital Associates III GP, LLC, its general partner,

By: /s/ Richard G. Jansen

Managing Director and General Counsel

CCMP CAPITAL ASSOCIATES III, L.P.

By: CCMP Capital Associates III GP, LLC, its general partner

By: /s/ Richard G. Jansen

Managing Director and General Counsel

CCMP CAPITAL ASSOCIATES III GP, LLC

By: /s/ Richard G. Jansen

Managing Director and General Counsel

QUARTZ CO-INVEST, L.P. By: CCMP Co-Invest III A GP, LLC, its general partner

By: /s/ Richard G. Jansen

## CCMP CO-INVEST III A GP, LLC

By: /s/ Richard G. Jansen
Managing Director and General Counsel

CCMP CAPITAL, LP By: CCMP Capital GP, LLC its general partner

By: /s/ Richard G. Jansen

Managing Director and General Counsel

CCMP CAPITAL GP, LLC

By: /s/ Richard G. Jansen

## Agreement Regarding the Joint Filing of Schedule 13G

The undersigned hereby agree as follows:

- (i) Each of them is individually eligible to use the Schedule 13G to which this Exhibit is attached, and such Schedule 13G is filed on behalf of each of them; and
- (ii) Each of them is responsible for the timely filing of such Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein; but none of them is responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

Dated: February 13, 2018

CCMP CAPITAL INVESTORS III, L.P.
CCMP CAPITAL INVESTORS III (EMPLOYEE), L.P.
CCMP CAPITAL INVESTORS III (AV-7), L.P.
CCMP CAPITAL INVESTORS III (AV-8), L.P.
CCMP CAPITAL INVESTORS III (AV-9), L.P.
CCMP CAPITAL INVESTORS III (AV-10), L.P.

By: CCMP Capital Associates III, L.P., its general partner By: CCMP Capital Associates III GP, LLC, its general partner,

By: /s/ Richard G. Jansen

Managing Director and General Counsel

CCMP CAPITAL ASSOCIATES III, L.P.

By: CCMP Capital Associates III GP, LLC, its general partner

By: /s/ Richard G. Jansen

Managing Director and General Counsel

CCMP CAPITAL ASSOCIATES III GP, LLC

By: /s/ Richard G. Jansen

QUARTZ CO-INVEST, L.P.

By: CCMP Co-Invest III A GP, LLC, its general partner

By: /s/ Richard G. Jansen

Managing Director and General Counsel

CCMP CO-INVEST III A GP, LLC

By: /s/ Richard G. Jansen

Managing Director and General Counsel

CCMP CAPITAL, LP

By: CCMP Capital GP, LLC its general partner

By: /s/ Richard G. Jansen

Managing Director and General Counsel

CCMP CAPITAL GP, LLC

By: /s/ Richard G. Jansen