CLEVELAND PUBLIC LIBRARY

Board Meeting March 16, 2017

RESOLUTION TO PURCHASE FILTERS FOR MAIN LIBRARY, LOUIS STOKES WING AND LAKE SHORE BUILDINGS' HVAC EQUIPMENT FROM KETCHUM & WALTON CO.

WHEREAS, To continue with the maintenance of the Library's HVAC Equipment, Property Management is requesting approval to replace the prefilters, secondary filters and final carbon filters in the air handling units in the Main Library, Louis Stokes Wing and Lake Shore buildings in order to preserve the quality of air for the protection of the patrons, staff and the library materials; and

WHEREAS, The Property Management department requested quotes from (4) vendors and received the following:

Ketchum & Walton Co \$141,656.44
Wadsworth Solutions \$148,682.00
Air Rite Filters No Bid
Hepner Filters No Bid

- WHEREAS, All vendors were asked to match a provided list of filters and specifications; and
- WHEREAS, Property Management recommends the purchase of the filters from Ketchum & Walton Co., as they are the lowest quote meeting the specifications and they have supplied the filters since the Louis Stokes Wing opened; now therefore be it
- RESOLVED, That the Board of Trustees authorizes the Executive Director, CEO, or his designee, to enter into a purchase agreement, subject to the Chief Legal Officer's approval, to purchase prefilters, secondary filters and final carbon filters from Ketchum & Walton Co, for a total cost not to exceed \$146,456.44, including freight of \$4,800, with the expenditure being charged to the General fund account 12100052-52230 (Maintenance Supplies).

extra Copy



MANUFAÇTURERS' REPRESENTATIVES

Date: March 2, 2017

To: CLEVELAND PUBLIC LIBRARY

325 Superior Avenue Cleveland, Ohio 44114 Terms: Net 30 Days F.O.B.: Shipping Point Freight: Prepaid & Add

Attn: TIM MURDOCH, Facilities Engineering

Quantity Description Extended Unit Price Price

LOUIS STOKES WING

Replacement Filter Pricing

	AHU -1			
40	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$	3.05	\$ 122.00
5	12 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.021224	\$	2.30	\$ 11.50
40	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air MERV 14 (95%) #PRP95S4412	\$	42.95	\$ 1,718.00
5	12 x 24 x 12 Flanders Rigid Air MERV 14 (95%) #PRP95S2412	\$	37.05	\$ 185.25
40	FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS #05-70608-3180 (BOX STYLE)	\$	409.00	\$ 16,360.00
5	12 x 24 x 12 Purafil Purafilter CPS #05-70608-3780 (BOX STYLE)	\$	291.00	\$ 1,455.00
	TOTAL AIR FILTER MATERIAL COST AHL	J-1:		\$ 19,851.75

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	AHU -2		
36	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$ 109.80
9	12 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.021224	\$ 2.30	\$ 20.70
36	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air MERV 14 (95%) #PRP95S4412	\$ 42.95	\$ 1,546.20
9	12 x 24 x 12 Flanders Rigid Air MERV 14 (95%) #PRP95S2412	\$ 37.05	\$ 333.45
36	FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS #05-70608-3180 (BOX STYLE)	\$ 409.00	\$ 14,724.00
9	12 x 24 x 12 Purafil Purafilter CPS #05-70608-3780 (BOX STYLE)	\$ 291.00	\$ 2,619.00
	TOTAL AIR FILTER MATERIAL COST AHU-2.		\$ 19,353.15
	AHU -3		
40	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$ 122.00
10	12 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.021224	\$ 2.30	\$ 23.00
40	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air MERV 14 (95%) #PRP95S4412	\$ 42.95	\$ 1,718.00
10	12 x 24 x 12 Flanders Rigid Air MERV 14 (95%) #PRP95S2412	\$ 37.05	\$ 370.50
10		\$ 37.05 409.00	\$ 370.50 16,360.00
	#PRP95S2412 FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS	409.00	

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	AHU -4		
40	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$ 122.00
10	12 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.021224	\$ 2.30	\$ 23.00
40	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air MERV 14 (95%) #PRP95S4412	\$ 42.95	\$ 1,718.00
10	12 x 24 x 12 Flanders Rigid Air MERV 14 (95%) #PRP95S2412	\$ 37.05	\$ 370.50
40	FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS #05-70608-3180 (BOX STYLE)	\$ 409.00	\$ 16,360.00
10	12 x 24 x 12 Purafil Purafilter CPS #05-70608-3780 (BOX STYLE)	\$ 291.00	\$ 2,910.00
	TOTAL AIR FILTER MATERIAL COST AHU-2:		\$ 21,503.50
	AHU - 5		
20	PREFILTERS: 16 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.021625	\$ 2.67	\$ 53.40
8	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air/PH MERV 14 #PRP95S4412H	\$ 47.95	\$ 383.60
	TOTAL AIR FILTER MATERIAL COST AHU-5:		\$ 437.00
	AHU - 6		
2	PREFILTERS: 20 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022024	\$ 2.85	\$ 5.70
4	16 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.021625	\$ 2.67	\$ 10.68

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	AHU - 7		
2	PREFILTERS: 16 x 20 x 2 Flanders VP-8 SC Pleated Filters #80085.021620	\$ 2.34	\$ 4.68
	TOTAL AIR FILTER MATERIAL COST AHU-7:		\$ 4.68
	AHU - 8		
4	PREFILTERS: 16 x 20 x 2 Flanders VP-8 SC Pleated Filters #80085.021620	\$ 2.34	\$ 9.36
4	16 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.021625	\$ 2.67	\$ 10.68
	TOTAL AIR FILTER MATERIAL COST AHU-8:		\$ 20.04
	AHU - 9		
3	PREFILTERS: 16 x 20 x 2 Flanders VP-8 SC Pleated Filters #80085.021620	\$ 2.34	\$ 7.02
	TOTAL AIR FILTER MATERIAL COST AHU-9:		\$ 7.02
	AHU - 10		
3	PREFILTERS: 20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 8.88
3	16 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.021625	\$ 2.67	\$ 8.01
	TOTAL AIR FILTER MATERIAL COST AHU-10:		\$ 16.89

MAIN LIBRARY WING

Replacement Filter Pricing

	AHU -20		
20	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$ 61.00
20	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air/PH MERV 14 (95%) #PRP95S4412H	\$ 47.95	\$ 959.00
20	FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS #05-70608-C180 (HEADER STYLE)	\$ 409.00	\$ 8,180.00
	TOTAL AIR FILTER MATERIAL COST AHU-20:		\$ 9,200.00
	AHU -21		
20	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$ 61.00
20	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air/PH MERV 14 (95%) #PRP95S4412H	\$ 47.95	\$ 959.00
20	FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS #05-70608-C180 (HEADER STYLE)	\$ 409.00	\$ 8,180.00
	TOTAL AIR FILTER MATERIAL COST AHU-21:		\$ 9,200.00
	AHU -22		
20	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$ 61.00
20	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air/PH MERV 14 (95%) #PRP95S4412H	\$ 47.95	\$ 959.00
20	FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS #05-70608-C180 (HEADER STYLE)	\$ 409.00	\$ 8,180.00
	TOTAL AIR FILTER MATERIAL COST AHU-22:		\$ 9,200.00

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	AHU -23			
20	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$	61.00
20	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air/PH MERV 14 (95%) #PRP95S4412H	\$ 47.95	\$	959.00
20	FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS #05-70608-C180 (HEADER STYLE)	\$ 409.00	\$	8,180.00
	TOTAL AIR FILTER MATERIAL COST AHU-23:		\$	9,200.00
	AHU -24			
	PREFILTERS:			
4	20 x 20 x 2 Flanders VP-8 SC Pleated Filters #80085.022020	\$ 2.65	\$	10.60
4	20 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022024	\$ 2.85	\$	11.40
4	SECONDARY FILTERS: 20 x 20 x 12 Flanders Rigid Air/PH MERV 14 #PRP950012H	\$ 38.45	\$	153.80
4	20 x 24 x 12 Flanders Rigid Air/PH MERV 14 #PRP950412H	\$ 45.75	\$	183.00
4	FINAL CARBON FILTERS: 20 x 20 x 12 Purafil Purafilter CPS #05-70608-C3C0 (HEADER STYLE)	\$ 386.00	\$	1,544.00
4	20 x 24 x 12 Purafil Purafilter CPS #05-70608-C380 (HEADER STYLE)	\$ 393.00	\$	1,572.00
	TOTAL AIR FILTER MATERIAL COST AHU-24:		\$	3,474.80
	AHU -25			
12	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$	36.60
12	SECONDARY FILTERS: 24 x 24 x 12 Flanders Rigid Air/PH MERV 14 (95%) #PRP95S4412H	\$ 47.95	\$	575.40
12	FINAL CARBON FILTERS: 24 x 24 x 12 Purafil Purafilter CPS #05-70608-C180 (HEADER STYLE) (This unit has two stages of carbon filters)	\$ 409.00	\$	4,908.00
	TOTAL AIR FILTER MATERIAL COST AHU-25:		\$	5,520.00
	20.		-	0,020.00

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	AHU -26			
3	PREFILTERS: 20 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022024	\$	2.85	\$ 8.55
2	12 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.021224	\$	2.30	\$ 4.60
	TOTAL AIR FILTER MATERIAL COST AHU-2	26:		\$ 13.15
	AHU -27			
3	PREFILTERS: 20 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022024	\$	2.85	\$ 8.55
2	12 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.021224	\$	2.30	\$ 4.60
	TOTAL AIR FILTER MATERIAL COST AHU-2	7:		\$ 13.15
	AHU -28			
6	PREFILTERS: 16 x 20 x 2 Flanders VP-8 SC Pleated Filters #80085.021620	\$	2.34	\$ 14.04
	TOTAL AIR FILTER MATERIAL COST AHU-2	8:		\$ 14.04
	AHU -29			
3	PREFILTERS: 20 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022024	\$	2.85	\$ 8.55
2	12 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.021224	\$	2.30	\$ 4.60
	TOTAL AIR FILTER MATERIAL COST AHU-2	9:		\$ 13.15
			n Total = a Total = Total =	\$ 128,562.2 3 <i>(</i>) 13,094.24 141,656.4 7 ¹



Date: March 2, 2017

To: CLEVELAND PUBLIC LIBRARY

325 Superior Avenue Cleveland, Ohio 44114 Terms: Net 30 Days F.O.B.: Shipping Point Freight: Prepaid & Add

Attn: TIM MURDOCH, Facilities Engineering

Quantity Description Extended

Output

Description Unit Price Price

Villa Angela Branch

Replacement Filter Pricing

	AC-1		
	PREFILTERS:		
16	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 47.36
	TOTAL AIR FILTER MATERIAL COST AC-1:		\$ 47.36
	AC-2		
	PREFILTERS:		
16	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 47.36
	TOTAL AIR FILTER MATERIAL COST AC-2		\$ 47.36
	AC-3		
	PREFILTERS:		
20	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 59.20
4	16 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.021625	\$ 2.67	\$ 10.68
	TOTAL AIR FILTER MATERIAL COST AC-3:		\$ 59.20
	AC-4		
	PREFILTERS:		
4	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 11.84

Villa Angela

12	20 x 20 x 2 Flanders VP-8 SC Pleated Filters #80085.022020	\$ 2.65	\$ 31.80
	TOTAL AIR FILTER MATERIAL COST AC-4:		\$ 11.84
	AC-5		
	PREFILTERS:		
12	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 35.52
	TOTAL AIR FILTER MATERIAL COST AC-5		\$ 35.52
	AC-6		
	PREFILTERS:		
16	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 47.36
	TOTAL AIR FILTER MATERIAL COST AC-6		\$ 47.36
	AC-7		
	PREFILTERS:		
16	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 47.36
	TOTAL AIR FILTER MATERIAL COST AC-7		\$ 47.36
	AC-8		
	PREFILTERS:		
6	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 17.76
	TOTAL AIR FILTER MATERIAL COST AHU-1:		\$ 17.76
	AC-9		
	PREFILTERS:		
4	20 x 25 x 2 Flanders VP-8 SC Pleated Filters #80085.022025	\$ 2.96	\$ 11.84
4	16 x 25 x 2 Flanders VP-8 SC Pleated Filters	\$ 2.67	\$ 10.68
	#80085.021625 TOTAL AIR FILTER MATERIAL COST AHU-2:		\$ 22.52
	AC-10		
40	PREFILTERS: 24 x 24 x 2 Flanders VP-8 SC Pleated Filters #80085.022424	\$ 3.05	\$ 122.00
	PRIMARY CARBON FILTERS:		
15	24 x 24 x 12 Flanders SuperFlow VC Type 201 #20123G23G0000	\$ 329.11	\$ 4,936.65
5	20 x 24 x 12 Flanders SuperFlow VC Type 201 #201923G23G0000	\$ 214.67	\$ 1,073.35

Villa Angela

	Vi	illa Angel	a Total =	\$ 13,094.24
	TOTAL AIR FILTER MATERIAL COST AHU-5	5:	-	\$ 324.36
2	PREFILTERS: 24 x 24 x 5 Purafil 95% Eff. JFL-90-5 #05-35895-B180	\$	162.18	\$ 324.36
	Purafil Unit			
	TOTAL AIR FILTER MATERIAL COST AHU-2	2:		\$ 122.00
40	PREFILTERS: 17 x 26.5 x 2 Camfil 30/30 Pleated Filter #312000400	\$	3.05	\$ 122.00
	Liebert Rare Book Collection			
	TOTAL AIR FILTER MATERIAL COST AHU-2	2:		\$ 12,311.60
20	HEPA FILTERS: 24 x 24 x 12 Flanders SuperFlow VC Type 201 #0-00J-C-08-03-IL-12-00-YY-F	\$	329.33	\$ 6,586.60
5	20 x 24 x 12 Flanders SuperFlow VC Type 101 #101923G23G0000	\$	225.67	\$ 1,128.35
15	FINAL CARBON FILTERS: 24 x 24 x 12 Flanders SuperFlow VC Type 101 #10123G23G0000	\$	336.75	\$ 5,051.25

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19,851.75
 19,353.15
 21,503.50
 21,503.50
    437.00
     16.38
      4.68
     20.04
      7.02
     16.89
  9,200.00
  9,200.00
  9,200.00
  9,200.00
  3,474.80
  5,520.00
     13.15
     13.15
     14.04
     13.15
128,562.20
     47.36
     47.36
     59.20
     11.84
     35.52
     47.36
     47.36
     17.76
     22.52
12,311.60
    122.00
    324.36
13,094.24
141,656.44
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Wadsworth Solutions Northwest 1500 Michael Owens Way Perrysburg, Ohio 43551 Office: (419) 861-8181 Fax: (419) 861-3279



www.wadsworthsolutions.com

Wadsworth Solutions Northeast 7851 Freeway Circle Middleburg Hts., Ohio 44130 Office: (216) 391-7263 Fax: (216) 391-3740

TO: Tim Murdock

Director of Facilites Cleveland Public Library 325 Superior Ave Cleveland, Ohio 44117

PROJECT: Filter & Carbon Replacement 3 sites Revised

Page 1 of 2 QUOTE # WC16-472R2

DATE: 2/2/2017

All quotations are for acceptance within 30 days. Contracts are not binding until this company has approved buyer's credit.

Unless shown, prices quoted do not include federal or State Sales Taxes.

We are pleased to quote Daikin's AAF products as follows:

- 1. Villa Angela Library
 - a. Pre-Filters

Qty (4)	Item #172-12-17A26E	Perfect Pleat SC M8
Qty (110)	Item #172-112-800	20x25x2 Pleated Filters
Qty (8)	Item # 172-112-600	16x25x2 Pleated
Qty (12)	Item # 172-112-700	20x20x2 Pleated Filters
Qty (40)	Item # 172-112-863	24x24x2 Pleated Filters
Qty (2)	Item # 3102041-908	VAR 2+HC SH Merv 15 24x24x4
Oty (2)	Item # AAF Pk	24x24x5

b. Secondary Filters

Qty (15)	Item # 411-500-863	Varisorb HC 24x24x12 SAAF Carb
Qty (5)	Item # 411-500-859	Varisorb HC 24+20+12 SAAF Carb
Qty (15)	Item # 411-501-863	Varisorb HC 24x24x12 SAAF Oxid
Qty (5)	Item # 411-501-859	Varisorb HC 24+20+12 SAAF Oxid

c. Final Filters

Oty (20) Item # 905-00-030	42D20H1T2F0	Ast	I 23-3/8+23-3

2. Louis Stokes Wing

a. Pre-Filters

Qty (156) Item #172-112-863	24x24x2 Pleated Filters
Qty (34) Item #172-112-319	12x24x2 Pleated Filters
Qty (27) Item # 172-112-600	16x25x2 Pleated Filters
Qty (2) Item # 172-112-782	20x24x2 Pleated Filters
Oty (3) Item # 172-112-870	25x25x2 Pleated Filters

b. Secondary Filters

Qty (164)	Item # 3011087-001	Varicel RF Merv 15 DH 24x24x12
Otv (34)	Item # 3011087-004	Varicel RF M15 24x12x12

c. Final Filters

Qty (156)	Item #	185-110-863	EL RF CPLUS NH 24x24x12
Qty (34)	Item #	185-110-319	Varicel RF C Plus NH 12x24x12

3. Main Library Wing

a. Pre-Filters

Qty (96)	Item #172-112-863	24x24x2 Pleated Filters
Qty (4)	Item #172-112-700	20x20x2 Pleated Filters
Qty (9)	Item # 172-112-782	20x24x2 Pleated Filters
Qty (6)	Item # 172-112-319	12x24x2 Pleated Filters
Qty (6)	Item # 172-112-500	16x20x2 Pleated Filters

b. Secondary Filters

Qty (92)	Item # 3011087-001	Varicel RF Merv 15 DH 24x24x12
Qty (4)	Item # 3011087-002	Varicel RF M15 DH 20x24x12
Qty (4)	Item # 3011087-003	Varicel RF M15 DH 20x20x12

c. Final Filters

Qty (92) Item # 185-110-863	EL RF CPLUS NH 24x24x12
Qty (5) Item # 185-110-782	Varicel RF C Plus NH 20x24x12
Qty (40) Item # 185-110-700	Varicel RF C Plus NH 20x20x12

Sales Tax Not Included. Installation by others.

Total lot price FOB Factory Freight Allowed to site... \$148,682.00

Issue PO to Wadsworth Solutions Northeast

Submitted by,
Mark Meyer and Pete Johnson
Wadsworth Solutions NE

Wadsworth Solutions Mechanical Equipment Warranty

Mechanical or electrical equipment which is sold by Wadsworth Solutions, for installation by others, on the premises of the ultimate user and within one year after its commissioning, and beneficial operation to the user, or eighteen months from manufacturers shipment (whichever comes first) fails because of defective workmanship, materials or fails to operate at the manufacturers specified performance standards will be repaired or replaced per the original manufacturers specific warranty policies. The product warranty is based solely upon the fact that the installing contractor has installed the equipment strictly within the manufacturers recommended installation guidelines. The installing contractor shall be responsible for all warranty labor associated with the repair or replacement. Devices or components determined to be defective will be repaired or replaced without charge upon delivery, freight prepaid, to a repair center designated by the original manufacturer. Unless otherwise stipulated in a written sales contract covering the equipment the phrase "specified performance standards" means that items will conform with the data and specifications published by their manufacturer which are current when Wadsworth Solutions contracts to sell them. Except for the forgoing, Wadsworth Solutions makes no warranty, either express or implied in fact or by law, with respect to any of the equipment or materials sold pursuant to this instrument as to the merchantability thereof, their fitness for the purpose for which they are sold, or in any other respect. The liability of Wadsworth Solutions resulting from any breach of any warranty shall be limited to the replacement or repair above we provided, and to claims which are presented to Wadsworth Solutions in writing promptly upon discovery by the claimant.

Wadsworth Solutions Mechanical Equipment Start-up Policy

Mechanical or electrical equipment, which is specifically contracted, to be started up by Wadsworth Solutions, will be commissioned to operate to the requirements of the equipment manufacturer. The startup procedure will include completion of the manufacturer's startup forms, the registration of the equipment for the warranty period and removal of all shipping materials. The warranty is defined as the manufacturers standard warranty policy.

The installing contractor shall be responsible to verify the following items have been completed prior to the beginning of the start-up procedure. If any of these items are not complete at the scheduled start-up time additional charges may be incurred if the startup time frame is impacted. All start up service is to be performed during normal working hours and under normal operating conditions, unless otherwise stated within the purchase order.

- 1. Power wiring to be complete and operational
- 2. All gas, water or steam piping systems to be complete and operational
- 3. All duct systems complete and open
- 4. Temperature control systems are functional and operational
- 5. Split systems piping shall be pressure tested for leaks and evacuated
- 6. Split systems shall be re-pressurized and charged with refrigerant holding charge
- 7. Start-up service does not include furnishing refrigerant or installing refrigerant
- 8. Long-term stored materials have had the manufacturers recommended maintenance performed

Wadsworth Solutions will warranty our start up service for a period of 30 days after commissioning. Any deficiencies in the start-up procedures, which affect equipment performance, will be corrected on site without charge during this period. Any warranty requirements that occur after the 30-day period but before the completion of the one-year manufacturer's warranty period, the installing contractor will be responsible for any on site labor to correct the problem.