



Industry Air Sales Ltd. 650 Woodlawn Rd. W., Unit 8A, Guelph, ON, N1K 1B8
 TEL: (519) 823-8900 / 1-888-211-0171 FAX: (519) 824-5599
 Email: info@industryairsales.com Web: www.industryairsales.com

CTC Bag-in/Bag-Out HEPA Filter Housings

FILTER HOUSING START-UP REPORTS - COVER PAGE AND SUMMARY

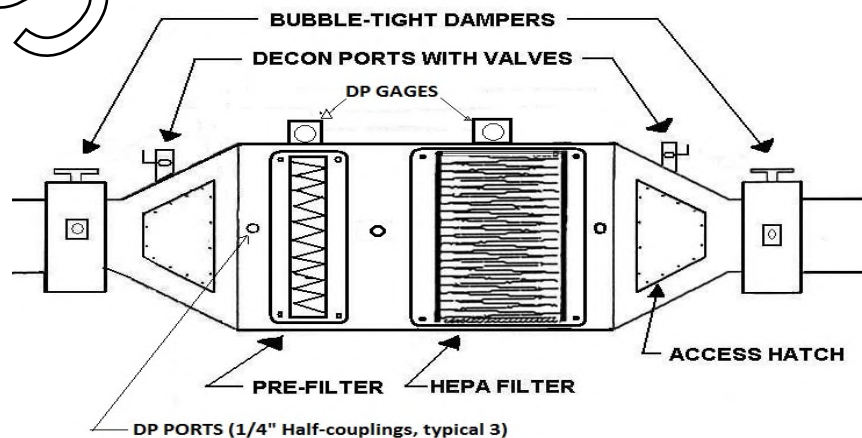
PREPARED BY:	GARY CURTIS, IAS	DATE PREPARED:	8-Feb-2018
PROJECT:	CREDIT VALLEY HOSPITAL	LOCATION:	MISSISSAUGA, ON
FAN/SYSTEM I.D.:	IS-3C-1 & IS-3C-2	HOUSING MODEL NO:	B2-412-1X1-TD14
AREA SERVED:	ISOLATION ROOM EXHAUST	HOUSING SERIAL NO:	H16120 (TOP) & H16119 (BTM)

NOTES & COMMENTS:

BOTH FILTER HOUSINGS FULLY INSPECTED FOR ANY SHIPPING OR RIGGING/INSTALL DAMAGE, EVERYTHING CHECKED O.K. CHECKED DAMPER OPERATION. INSTALLED FILTERS AND TESTED TO CSA-8002 STANDARD.

REPORT NAME:	Required	Attached	Notes
CTC FACTORY PRESSURE DECAY REPORT	YES	YES	H16120 & H16119
START-UP CHECK-LIST REPORT & NOTES	YES	YES	
HEPA/ULPA FILTER FACTORY TEST REPORT:	NO	NO	911259 & 911260
IN-SITU PRESSURE DECAY TEST, 5-MIN TEST DURATION			
IN-SITU CERTIFICATION (ON-SITE INDEPENDENT HEPA FILTER TEST REPORT):	YES	YES	JWI-07206/07207

NOTES & COMMENTS:



Use the picture above to note any area(s) of deficiency on the filter assembly. Provide details above-left if necessary.



CONTAMINATION TECHNOLOGY

C O R P O R A T I O N

2800 Market Loop Southlake, Texas 76092

System Test Report (PRESSURE DECAY METHOD)

Form: Doc. 300, Rev. B1 7/31/2007

Customer: <i>IAS</i> <i>40 Credit Valley</i>	Serial #: SERIAL NO. <i>H16120</i>	Date: <i>11/28/16</i>
PO # <i>7644</i>	Housing Model #: <i>B2-412-1x1 T(RH)</i>	
Fan # <i>15-3C-1</i>	Barometric Pressure:	
	Initial Temperature: <i>65°</i>	

Interval Readings			
System Test		Seal Face Test	
Minutes	Pressure (in W.C.)	Minutes	Pressure (in W.C.)
1 <i>1105</i>	<i>15.3</i>	1 <i>1125</i>	<i>15.4</i>
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15 <i>1119</i>	<i>15.3</i>	15 <i>1139</i>	<i>15.4</i>
Final Temperature: <i>65°</i>		Seal Face Volume:	
Body Volume: <i>N/A</i>		<i>N/A</i>	
Leakage Rate for Body scfm:		Leakage Rate for Body scfm:	
Tested By: <i>TR</i>		Inlet Damper # <i>CCD-14-M D16172</i>	
Approved By: <i>[Signature]</i>		Outlet Damper # <i>CCD-14-M D16173</i>	
Comments: <i>Found & repaired 2 leaks.</i>			



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TEL: (519) 823-8900 / 1-888-211-0171 FAX: (519) 824-5599

Email: info@industryairsales.com Web: www.industryairsales.com

DATE: 16-MAY-2017

PREPARED BY: G. CURTIS

COMPANY: IAS

Bulletin #102-1-13

CTC BAG-IN/BAG-OUT HOUSING/SYSTEM - START-UP CHECK-LIST

PROJECT:	CREDIT VALLEY HOSPITAL	LOCATION:	MISSISSAUGA, ON
FAN/SYSTEM I.D.:	IS-3C-1 & IS-3C-2	CTC MODEL NO:	B2-412-1X1-TDI4
AREA SERVED:	ISOLATION ROOM EXH.	HOUSING SERIAL NO:	H16020 (TOP)

ITEM NO.	CHECK-LIST ITEM	Y/N	Completion Date	Initial
1	Torough physical inspection of the housing and components noting any damage that might compromise the integrity, performance or function of the system.	✓	10-MAY-17	MC
2	Address any items noted in Item #1.	✓	"	
3	Review CTC IO&M, particularly Section 6.0 "Start-up Installation".	✓	"	
4	Review IAS Installation Manual: CTC BIBO HOUSING START-UP GUIDE	✓	"	
5	PERIPHERALS: Check quantity and condition of all peripheral items including (but not limited to): Prefilters, HEPA/ULPA Filters, D.P. Gage(s), BIBO Bags, Cinch Straps.	✓	"	
6	DAMPERS: Check bubble-tight dampers (if provided) to ensure proper, unobstructed operation of the damper(s). Correct any issues that prevent damper sealing.	✓	"	
7	INTERNAL CHECKS: Check housing internals for foreign materials and damage. Check operation of filter clamping mechanisms and filter retrieval guides (if provided).	✓	"	
8	GAGE(S): Gage(s) can be housing mounted or provided loose for field mounting. If factory mounted, check gage, tubing and fittings for possible shipping/handling damage. When field mounting, follow Dwyer IO&M	✓	"	
9	Install HEPA/ULPA filters with gaskets facing the sealing face (opposite the clamping mechanism) OR with gel-trough facing the knife-edge. Carefully apply a thin coat of food-grade silicone grease to gaskets prior to	✓	"	
10	Tighten filter clamping mechanisms, alternating between the top and bottom mechanisms to ensure even pressure application on the gasket. Look for gasket compression at top and bottom. DO NOT OVERTIGHTEN.	✓	"	
11	Install pre-filters as required. Make sure pre-filters are installed with the airflow indicators pointing towards the final filters (downstream). If there are multiple filters in the track then they should be taped together to facilitate removal at future change-out.	✓	"	
12	Place PVC bag(s) over filter access collars ensuring the bungie cord passes the second rib of the collar. Secure cinch strap between the collar ribs on top of the bag. (See IO&M).	✓	16-MAY-17	
13	Roll-up bag and push into collar cavity while placing the door over the bag. Secure the star-knobs alternating between each knob to apply even pressure. (See IO&M)	✓	"	
14	FAN: Start-up Fan. Check and record Initial Pressure Drop across filters. Check security of all doors and fittings on housing. HAND TIGHTEN ONLY. VFD 29 Hz	✓	"	
15	TESTING & REPORTS: Conduct site filter challenge or Pressure Decay testing as specified by the engineer. Furnish results to contractor/customer and re-test if required.	PD HEPA	10-MAY 16-MAY	
	GAGE DP READINGS (INITIAL OR CLEAN READINGS): 0.05" / 0.35"		16-MAY	
	HEPA FILTER MODEL#/PART# & SERIAL NO: (SEE REPORTS ATTACHED) SN 911259		10-MAY	
Other Notes:				



LEAKAGE RATE TEST REPORT

(PRESSURE DECAY METHOD)

Your Air Filtration and Dust Collection Specialists.

Customer: PLAN GROUP

Attention: _____

Job Reference: CVH, REDEV PH3

Report No.: H16020-05-10-17

Report Prepared By: Gary Curtis

Test Date: MAY 10, 2017

Location Of Equipment Tested: C BLOCK ROOF

CTC Housing/System Model No: B2-412-1X1

CTC Housing Serial Number: H16020 (TOP)

Fan/System Identification: IS-3C-1 & 2 IS-3C-1

Notes & Comments: * Downstream ball valve is obstructed by unistrut

Minutes	Start Time:	Pressure ("wc):
(Start 0)	3:48	6.8"
1	3:49	6.8"
2	3:50	6.7"
3	3:51	6.6"
4	3:52	6.5"
5	3:53	6.5"
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

IN-SITU LEAK TEST PARAMETERS

Allowable Leakage Rate (%): 25%

Initial Pressure Recorded: 6.8"
(Indicate "wg or Pascals)

Final Pressure Recorded: 6.5"

Leakage Rate Recorded (%): 4.4%

Test Results (versus Allowable): PASS / FAIL

Test Technician Name: G. CURTIS

Test Technician Initials: MC

Witness: Name/Company: _____

Initials: _____

Industry Air Sales Ltd., 2 Automatic Road, Unit 123, Brampton, ON, L6S 6K8

Toll Free: 1-888-211-0171 • Tel: 905-458-8900 • Fax: 905-458-4599

Website: www.industryairsales.com • E-mail: gcurtis@industryairsales.com



**CONTAMINATION
TECHNOLOGY**
CORPORATION
2800 Market Loop Southlake, Texas 76092

System Test Report
(PRESSURE DECAY METHOD)

Form: Doc. 300, Rev. B1 7/31/2007

Customer: <i>IAS</i> <i>c/o Credit Valley</i>	Serial #: SERIAL NO. <i>H16119</i>	Date: <i>11/23/16</i>
PO # <i>7644</i>	Housing Model #: <i>B2-412-1x1</i>	<i>B (RH)</i>
Fan # <i>15-3C-2</i>	Barometric Pressure:	
	Initial Temperature: <i>70"</i>	

Interval Readings			
System Test		Seal Face Test	
Minutes	Pressure (in W.C.)	Minutes	Pressure (in W.C.)
1 <i>0955</i>	<i>16.7</i>	1 <i>1045</i>	<i>13.5</i>
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15 <i>1009</i>	<i>16.7</i>	15 <i>1029</i>	<i>13.5</i>
Final Temperature: <i>70°</i>		Seal Face Volume:	
Body Volume: <i>N/A</i>		<i>N/A</i>	
Leakage Rate for Body scfm:		Leakage Rate for Body scfm:	
<i>0</i>		<i>0</i>	
Tested By: <i>TR</i>		Inlet Damper # <i>CCD-14-M</i> <i>D16170</i>	
Approved By: <i>[Signature]</i>		Outlet Damper # <i>CCD-H-M</i> <i>D16171</i>	
Comments:			



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DATE: 16-MAY-2017

PREPARED BY: G. CUTTIS

COMPANY: IAS

Bulletin #102-1-13

CTC BAG-IN/BAG-OUT HOUSING/SYSTEM - START-UP CHECK-LIST

PROJECT:	CREDIT VALLEY HOSPITAL	LOCATION:	MISSISSAUGA, ON
FAN/SYSTEM I.D.:	IS-3C-1 & IS-3C-2	CTC MODEL NO:	B2-412-1X1-TD14
AREA SERVED:	ISOLATION ROOM EXH.	HOUSING SERIAL NO:	H16119 (BTM)

ITEM NO.	CHECK-LIST ITEM	Y/N	Completion Date	Initial
1	Thorough physical inspection of the housing and components noting any damage that might compromise the integrity, performance or function of the system.	✓	10-MAY-17	MC
2	Address any items noted in Item #1.			
3	Review CTC IO&M, particularly Section 6.0 "Start-up Installation".			
4	Review IAS Installation Manual: CTC BIBO HOUSING START-UP GUIDE			
5	PERIPHERALS: Check quantity and condition of all peripheral items including (but not limited to): Prefilters, HEPA/ULPA Filters, D.P. Gage(s), BIBO Bags, Cinch Straps.	✓	"	
6	DAMPERS: Check bubble-tight dampers (if provided) to ensure proper, unobstructed operation of the damper(s). Correct any issues that prevent damper sealing.	✓	"	
7	INTERNAL CHECKS: Check housing internals for foreign materials and damage. Check operation of filter clamping mechanisms and filter retrieval guides (if provided).	✓	"	
8	GAGE(S): Gage(s) can be housing mounted or provided loose for field mounting. If factory mounted, check gage, tubing and fittings for possible shipping/handling damage. When field mounting, follow Dwyer IO&M	✓	"	
9	Install HEPA/ULPA filters with gaskets facing the sealing face (opposite the clamping mechanism) OR with gel-trough facing the knife-edge. Carefully apply a thin coat of food-grade silicone grease to gaskets prior to	✓	"	
10	Tighten filter clamping mechanisms, alternating between the top and bottom mechanisms to ensure even pressure application on the gasket. Look for gasket compression at top and bottom. DO NOT OVERTIGHTEN.	✓	"	
11	Install pre-filters as required. Make sure pre-filters are installed with the airflow indicators pointing towards the final filters (downstream). If there are multiple filters in the track then they should be taped together to facilitate removal at future change-out.	✓	"	
12	Place PVC bag(s) over filter access collars ensuring the bungie cord passes the second rib of the collar. Secure cinch strap between the collar ribs on top of the bag. (See IO&M).	✓	16-MAY-17	
13	Roll-up bag and push into collar cavity while placing the door over the bag. Secure the star-knobs alternating between each knob to apply even pressure. (See IO&M)	✓	"	
14	FAN: Start-up Fan. Check and record Initial Pressure Drop across filters. Check security of all doors and fittings on housing. HAND TIGHTEN ONLY. VFD 29 Hz	✓	"	✓
15	TESTING & REPORTS: Conduct site filter challenge or Pressure Decay testing as specified by the engineer. Furnish results to contractor/customer and re-test if required.	PD HEPA	10-MAY 16-MAY	
	GAGE DP READINGS (INITIAL OR CLEAN READINGS): 0.05" / 0.30"		16-MAY	
	HEPA FILTER MODEL#/PART# & SERIAL NO: (SEE REPORTS ATTACHED) S/N 911260		10-MAY	
Other Notes:				



LEAKAGE RATE TEST REPORT

(PRESSURE DECAY METHOD)

Your Air Filtration and Dust Collection Specialists.

Customer: PLAN GROUP
Attention: _____
Job Reference: CVH, REDEV PH3

Report No.: H16119-051017
Report Prepared By: Gary Curtis
Test Date: MAY 10, 2017

Location Of Equipment Tested: C BLOCK ROOF
CTC Housing/System Model No: B2-412-1X1
CTC Housing Serial Number: H16119 (BOTTOM)
Fan/System Identification: IS-3C-142
Notes & Comments: _____

Minutes	Start Time:	Pressure ("wc):
(Start 0)	2:39	6.8"
1	2:40	6.9"
2	2:41	6.8"
3	2:42	6.7
4	2:43	6.6
5	2:44	6.5"
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

IN-SITU LEAK TEST PARAMETERS

Allowable Leakage Rate (%): 25%

Initial Pressure Recorded: 6.8"
(Indicate "wg or Pascals)

Final Pressure Recorded: 6.5"

Leakage Rate Recorded (%): 4.4%

Test Results (versus Allowable): PASS / FAIL

Test Technician Name: G. CURTIS

Test Technician Initials: MC

Witness: Name/Company: _____

Initials: _____



2130 Nelwood Drive Columbia, MO 65202

CONTROL NO.: 100-1 Stock Order

PART NO.: 15A20H1T2H0 (557-205-305) 24 X 24 X 11 1/2

REF PART#:

FILTER TEST REPORT

TEST FLOW (CFM): 2000

TEST AEROSOL(S): Polyfunctional Alcohol

Item#	GAGE SN(S):	INSPECTOR NO.:	DATE TESTED:	FILTER SERIAL NO.:	Readings taken @ 100% FLOW			@ 20% FLOW	
					EFFICIENCY 99.99% MIN.	PENETRATION .010% MAX.	RESISTANCE 1.4 IN.W.G. MAX.	PENETRATION	
1	N/A	47	3/20/2017	911259	99.99	0.010	1.40	N/A	
2	N/A	47	3/20/2017	911260	99.99	0.010	1.40	N/A	
3	N/A	47	3/20/2017	911261	99.99	0.010	1.40	N/A	
4	N/A	47	3/20/2017	911262	99.99	0.010	1.40	N/A	
5	N/A	47	3/20/2017	911264	99.99	0.010	1.40	N/A	
6	N/A	47	3/20/2017	911266	99.99	0.010	1.40	N/A	
7	N/A	47	3/20/2017	911268	99.99	0.010	1.40	N/A	
8	N/A	47	3/20/2017	911269	99.99	0.010	1.40	N/A	
9	N/A	47	3/20/2017	911271	99.99	0.010	1.40	N/A	
10	N/A	47	3/20/2017	911274	99.99	0.010	1.40	N/A	



CERTIFICATE OF TEST - This will certify that the filters described herein have been inspected and tested in accordance with AAF International's standard inspection and testing procedures which are intended to comply with I.E.S.T. recommended practices.



Reviewed by: 47

Date: 4/7/2017



#20-520 Westney Rd. S., Ajax, Ontario L1S 6W6
Tel: (905) 428-6671 Fax: (905) 428-7703
Toll Free: 1-800-321-3816

Test Report No. CJW1-07206

FILTER HOUSING PERFORMANCE EVALUATION DATA REPORT

Customer	INDUSTRY AIR @ CREDIT VALLEY HOSPITAL	Date Tested	2017 MAY 16
Address	2200 EGLINTON AVE WEST	Cert. No.	JW1-07206
City & Province	MISSISSAUGA, ON	Postal Code	L5M 2N1
Location	CREDIT VALLEY HOSPITAL	Room	C-WING (Roof top)
Contact	GARY CURTIS	Manufacturer	CONTAMINATION TECH
Phone	416-460-9504	Model No.	B2-412-11-TD14 (TOP)
Email	gcurtis@industryairsales.com	S/N	H16020
		Equipment	BAG IN/BAG OUT HOUSING
		P. O. No.	N/A

INSPECTION & CERTIFICATION: The purpose for on-site field testing of the equipment identified herein is to assure that it is functioning as designed, complying with the manufacturer's design specifications, IEST-RP-CC-006.2; as well as other specifications which may apply. All evaluation procedures are performed in accordance with these standards and specifications and are defined in the Service Procedures of CON-TEST. This report is issued for above listed date only. Under normal operating conditions this unit should function as designed by the manufacturer.

STATUS SUMMARY

- ☒ Unit Certified ☐ Unit NOT Certified
- ☐ Per Manufacturer's Specifications ☐ Requires filter replacement
- ☒ Per IEST-RP-CC-006.2 ☐ Repairs to be made prior to certification compliance
- ☐ Other:

HEPA FILTER LEAK TEST: Scan acceptance <0.01% of the challenge concentration*
Total penetration <0.005% of the challenge concentration*

*Unless otherwise specified by agreement between buyer and seller.

Quantity: 1 Size: 24" x 24" x 11.5"

Date new HEPA filters changed: 2017 MAY

Manufacturer: AAF

Efficiency: 99.99 % (High Capacity)

Challenge concentration determination: Direct ☒ Calculated ☐

Challenge concentration: 40 µg/L

Test method used: ☐ SCAN: Rate ☒ TOTAL PENETRATION

Leakage detected: Media ☐ Gasket ☐ Structural ☐ No leaks ☒

Total penetration test results: 0.002 %

Repaired with: NA

Causing approx. NA % filter obstruction

Filter repair obstruction acceptance: Scan test: < 3% of filter medium area
Total penetration test: < 5% of filter medium area

Magnehelic gauge: .35" w.g.

Gauge zeroed: N/A ☐ Yes ☐ No ☒

Instrumentation manufacturer: TEC

Model no. PH-5

Serial no. 1806

Calibration Date: 2016 NOV 18

FILTER LEGEND

- x Indicates leakage
☒ Indicates successful repair

BACK/TOP



COMMENTS & RECOMMENDATIONS:

NEW FILTER HOUSING. NO LEAKS DETECTED IN HEPA FILTER.
ACCEPTABLE FOR USE.

Inspection Carried Out By: J. WEBSTER

Verified By:

Next Inspection Date: 2018 MAY



#20-520 Westney Rd. S., Ajax, Ontario L1S 6W6
Tel: (905) 428-6671 Fax: (905) 428-7703
Toll Free: 1-800-321-3816

Test Report No. CJW1-07207

FILTER HOUSING PERFORMANCE EVALUATION DATA REPORT

Customer	INDUSTRY AIR @ CREDIT VALLEY HOSPITAL	Date Tested	2017 MAY 16
Address	2200 EGLINTON AVE WEST	Cert. No.	JW1-07207
City & Province	MISSISSAUGA, ON	Postal Code	L5M 2N1
Location	CREDIT VALLEY HOSPITAL	Room	C-WING (Roof top)
Contact	GARY CURTIS	Manufacturer	CONTAMINATION TECH
Phone	416-460-9504	Model No.	B2-412-11-TD14 (BOTTOM)
Email	gcurtis@industryairsales.com	S/N	H16119
		Equipment	BAG IN/BAG OUT HOUSING
		P. O. No.	N/A

INSPECTION & CERTIFICATION: The purpose for on-site field testing of the equipment identified herein is to assure that it is functioning as designed, complying with the manufacturer's design specifications, IEST-RP-CC-006.2; as well as other specifications which may apply. All evaluation procedures are performed in accordance with these standards and specifications and are defined in the Service Procedures of CON-TEST. This report is issued for above listed date only. Under normal operating conditions this unit should function as designed by the manufacturer.

STATUS SUMMARY

<input checked="" type="checkbox"/> Unit Certified	<input type="checkbox"/> Unit NOT Certified
<input type="checkbox"/> Per Manufacturer's Specifications	<input type="checkbox"/> Requires filter replacement
<input checked="" type="checkbox"/> Per IEST-RP-CC-006.2	<input type="checkbox"/> Repairs to be made prior to certification compliance
<input type="checkbox"/> Other:	

HEPA FILTER LEAK TEST: Scan acceptance <0.01% of the challenge concentration*
Total penetration <0.005% of the challenge concentration*

*Unless otherwise specified by agreement between buyer and seller.

Quantity: 1 Size: 24" x 24" x 11.5"

Date new HEPA filters changed: 2017 MAY

Manufacturer: AAF

Efficiency: 99.99 % (High Capacity)

Challenge concentration determination: Direct ☒ Calculated ☐

Challenge concentration: 40 µg/L

Test method used: ☐ SCAN: Rate ☐ /sec.

☒ TOTAL PENETRATION

Leakage detected: Media ☐ Gasket ☐ Structural ☐ No leaks ☒

Total penetration test results: 0.002 %

Repaired with: NA

Causing approx. NA % filter obstruction

Filter repair obstruction acceptance: Scan test: < 3% of filter medium area

Total penetration test: < 5% of filter medium area

Magnehelic gauge: .30" w.g.

Gauge zeroed: N/A ☐ Yes ☐ No ☒

Instrumentation manufacturer: TEC

Model no. PH-5

Serial no. 1806

Calibration Date: 2016 NOV 18

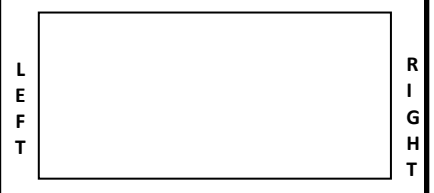
COMMENTS & RECOMMENDATIONS:

NEW FILTER HOUSING. NO LEAKS DETECTED IN HEPA FILTER.
ACCEPTABLE FOR USE.

FILTER LEGEND

x Indicates leakage
☒ Indicates successful repair

BACK/TOP



Inspection Carried Out By: J. WEBSTER

Verified By:

Next Inspection Date: 2018 MAY