



Department of Environmental Protection

2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DEP Form: 62-761.850(19)
Form Title: Storage Tank Equipment
Redistribution Form
Effective Date: Jan. 2019
Incorporated into Rule 62-761.850, F.A.C.

Storage Tank System Equipment Registration Form

Fill out completely

General Information

Company Name: <u>Emco Wheaton</u>	Contact Name: <u>John Vautier</u>
Company Address: <u>2300 Industrial Park Drive</u>	City, State: <u>Wilson NC</u> Zip: <u>27893</u>
E-mail: <u>vautier@comcast.net</u>	Contact Number: <u>407-625-8339</u>
Product Name: <u>A1100 Guardian Dual Point Overfill Prevention Valve</u>	
Model Number(s): <u>A1100EVR-XXXXX</u>	Product Type: _____

Rule(s) citation that registration is being requested within Chapter 62-761 (UST), and/or 62-762 (AST), _____

F.A.C.: Write a brief description of equipment registration request including product limitations:

Vapor-tight OPV meets EPA 40CFR part 63 requirements. All standard variants are acceptable for use with up to E25 ethanol blend gasoline & B99 Biodiesel blends. Higher % ethanol or biodiesel require the "E" variant. Available sized top tube with CF variants.

Information Checklist (Choose Yes, No, or N/A - Not Applicable):

	Yes	No	N/A
1. Third-party Certification by a Nationally Recognized Testing Laboratory? (Required)	☒	☐	☐
2. Documentation of third-party evaluation that the equipment meets DEP Rules?	☒	☐	☐
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?	☒	☐	☐
4. Technical information and drawings included?	☒	☐	☐
5. Installation instructions included?	☒	☐	☐
6. Annual Operability Testing Requirements (Rules 62-761.500, 62-762.501, & 62-762.502 F.A.C.)?	☒	☐	☐
7. Integrity Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702, F.A.C.)?	☒	☐	☐
8. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?	☒	☐	☐
9. Has the product been approved or registered in other countries or states? (If so provide list)	☒	☐	☐
10. Any requirements for company certified installers or trainers?	☒	☐	☐
11. Was this product(s) previously approved or registered by the Department? If yes, EO- <u>414</u>	☒	☐	☐
12. Any changes or modifications to the equipment since the last submittal to DEP?	☐	☒	☐

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@floridadep.gov, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, 115 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:

A1100 Guardian Dual Point Overfill Prevention Valve. Models to include:
A1100EVR-055,056,058CF,056SERFK,056SRFK,057,057E,058, 058CF, 483734SXXX

Note: This A1100 OPV is not recommended for tanks under 6.5" in diameter.

Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

John Vautier
Printed Name and Title

[Signature]
Signature (Print Name)

3-30-22
Date

For Department Use Only:

Date Application Received: 03/31/2022 Application complete: Yes: ☒ No: ☐

EQ- 414A Date of complete or incomplete letter sent: 04/12/2022 Date Equipment Requires Renewal: 04/12/2027

Storage tank system equipment requires renewal every 5 years in accordance with subsection 62-761.850(2), F.A.C.



Department of Environmental Protection

2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DEP Form: 62-761.900(9)

Form Title: Storage Tank Equipment

Registration Form

Effective Date: July 2019

Incorporated in Rule 62-761.850, F.A.C.

Storage Tank System Equipment Registration Form

Fill out completely

General Information

Company Name: Emco Wheaton	Contact Name: John Vautier
Company Address: 2300 Industrial Park Drive	City, State: Wilson NC Zip: 27893
E-mail: jvautier@comcast.net	Contact Number: 407-625-8339
Product Name: A1100 Guardian Dual Point Overfill Prevention Valve	
Model Number(s): A1100EVR-XXXXX	Product Type:
Rule(s) citation that registration is being requested within Chapter 62-761 (UST), and/or 62-762 (AST),	

F.A.C.: Write a brief description of equipment registration request including product limitations:

Vapor-tight OPV meets EPA 40CFR part 63 requirements. All standard variants are acceptable for use with up to E25 ethanol blend gasoline & B20 Biodiesel blends. Higher % ethanol or biodiesel require the "E" variant. Available anodized top tube with CF variants.

Information Checklist (Choose Yes, No, or N/A - Not Applicable):

	Yes	No	N/A
1. Third-party Certification by a Nationally Recognized Testing Laboratory? (Required)	☒	☐	☐
2. Documentation of third-party evaluation that the equipment meets DEP Rules?	☒	☐	☐
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?	☒	☐	☐
4. Technical information and drawings included?	☒	☐	☐
5. Installation instructions included?	☒	☐	☐
6. Annual Operability Testing Requirements (Rules 62-761.500, 62-762.501, & 62-762.502 F.A.C.)?	☒	☐	☐
7. Integrity Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702, F.A.C.)?	☒	☐	☐
8. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?	☒	☐	☐
9. Has the product been approved or registered in other countries or states? (If so provide list)	☒	☐	☐
10. Any requirements for company-certified installers or trainers?	☒	☐	☐
11. Was this product(s) previously approved or registered by the Department? If yes, EQ- 414	☒	☐	☐
12. Any changes or modifications to the equipment since the last submittal to DEP?	☐	☒	☐

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@floridadep.gov, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:

A1100 Guardian Dual Point Overfill Prevention Valve. Models to include:
A1100EVR-055,056,058CF,058SERFK,058SRFK,057,057E,058, 058CF, 493734SXXX

Note: This A1100 OPV is not recommended for tanks under 6.5" in diameter.

Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

John Vautier

Printed Name and Title

Signature (Handwritten)

3-30-22

Date

For Department Use Only:

Date Application Received: 3/31/2022

Application complete:

Yes: ☒ No: ☐

EQ- 414

Date of complete or incomplete letter sent: 4/12/2022

Date Equipment Requires Renewal: 4/12/2027

Storage tank system equipment requires renewal every 5 years in accordance with subsection 62-761.850(2), F.A.C.

A1100T Overfill Prevention Valve Calculation and Field Confirmation Sheet

This calculation sheet is to document the dimensions needed for proper installation and should be used only with the instructions. This sheet assumes 95% maximum fill based on NFPA30 guidelines. Length measurements are in inches. Contact the local Authority Having Jurisdiction (AHJ) to determine all regulatory requirements regarding fill capacity.

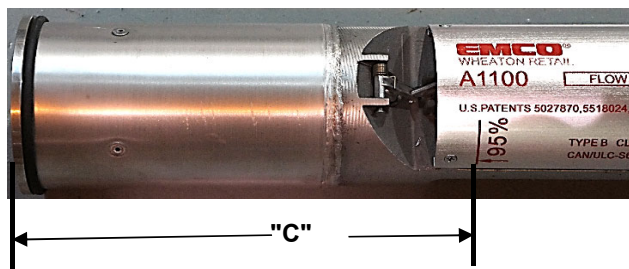
For field confirmation, the tank diameter must be known and a tank specific tank chart is helpful.

Installation Calculations

- | | |
|---|--------------|
| 1. Tank Diameter is TD | TD= _____ |
| 2. Tank Capacity is TC | TC= _____ |
| 3. Desired Shutoff Percentage (Note NFPA Guidelines) | SO%= _____ |
| 4. Shutoff Tank Capacity TC@ shutoff % = TC x 0.95 | _____ |
| 5. Tank Level from Stick Chart for Shutoff Capacity (95%) | TL@95% _____ |
| 6. Tank "B" Dimension B = TD - TL@95% | B= _____ |
| 7. Distance from top seal surface (1) to the top (inside) of the tank (2) is A. See diagram below for manway style tanks. The manway height (H) must be known and used in the Calculation A = H+J. The H dimension is typically 5-7 inches) | A= _____ |
| 8. Length of OPV top tube to (95% mark) on the A1100 is C - C = A+B See Picture. Measure C distance from the 95% line on valve and cut top tube | C= _____ |
| 9. Distance from the top seal surface (1) to the tank bottom is "D" D = Tank Dia + A | D= _____ |
| 10. OPV Assembly Overall Length OAL = D-6 inches. Screw together top and bottom tube assemblies. Measure from top tube end and cut bottom tube either straight or 45 degree at operators preference. (See diagram to insure the 6" maximum clearance is maintained) | OAL= _____ |

1. The sealing surface refers to the location of the OPV collar sealing point. It may be the riser pipe or the seal surface built in to some spill buckets.

2. If the tank uses a manway, be sure to use the tank top for measurement and not the top of the manway as shown in the diagram.



Field Confirmation Calculations

Confirm 95% Mark: Measure from the **Fill Adapter** to the Tank Bottom. (This is "D" dimension). Now measure from the fill adapter to the Acorn Nut using the A0081-1100 (This is dimension "T") by resting the tool on the Acorn Nut, marking the tool at the fill adapter with a marker or tape. The 95% tank level will be "D" - "T" - 3.75". This dimension must be less than or equal to the dimension on the tank chart for the 95% fill level.

TL@95% Actual =
D - T - 3.75

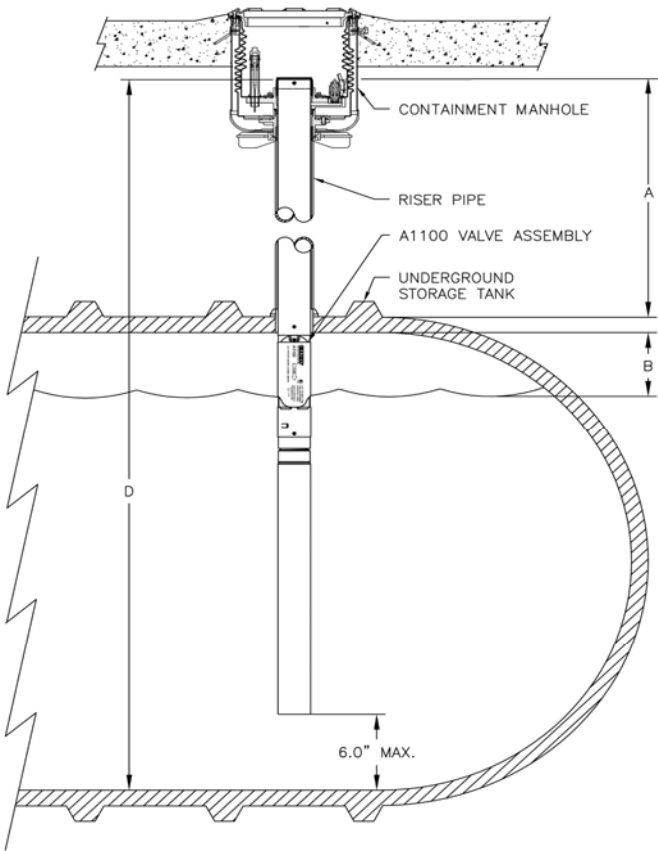
= _____

Confirm OPV Assembly Bottom Clearance: Measure from the **Fill Adapter** to the bottom of the drop tube using a tape measure. This should be done at various positions of the tube to insure the shortest length is found (in case of an angled bottom cut). Subtract this dimension from "D" dimension in the step above. The difference must be 6" or less.

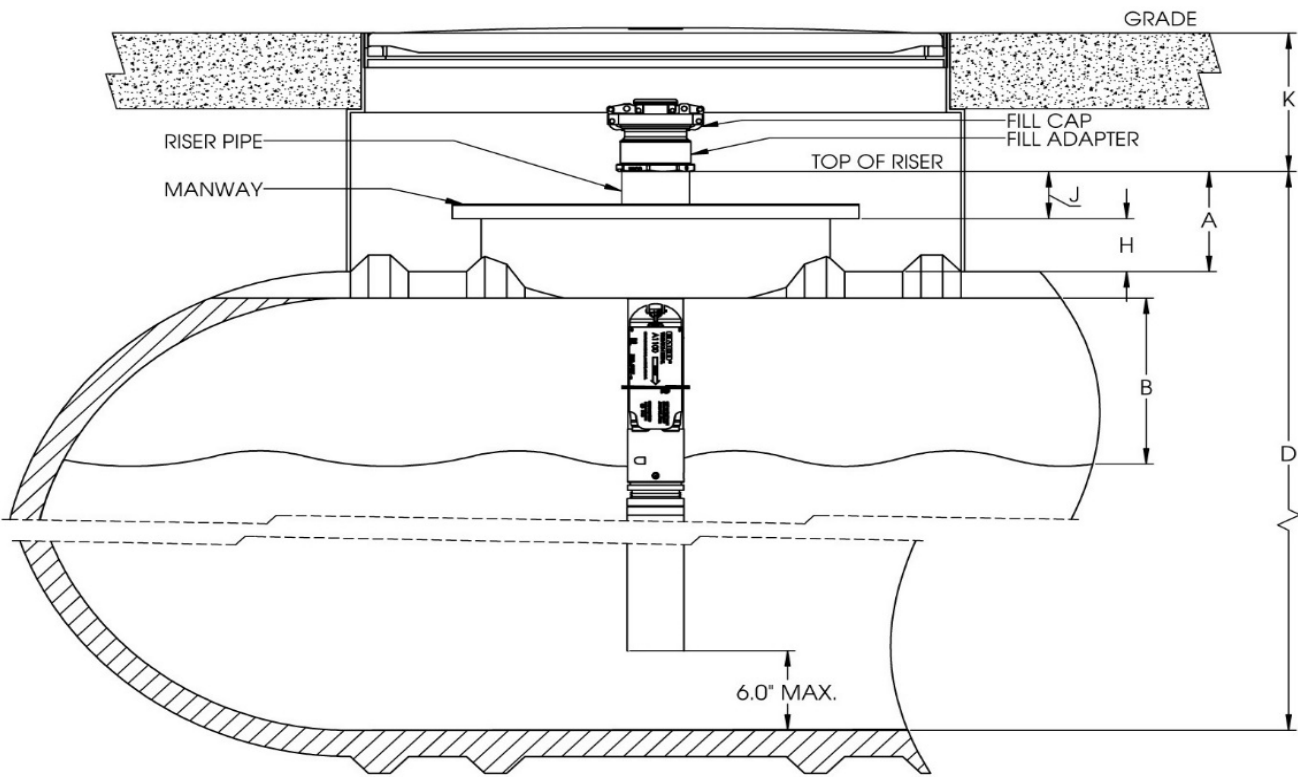
OAL Actual = _____

D - OAL = _____

Typical Spill Containment Manhole



Manway Style Tank



This is an example shown with an 8 foot diameter 10,000 gallon tank

1. Tank Diameter is TD	TD=	96
2. Tank Capacity is TC	TC=	10,000
3. Desired Shutoff Percentage (Note NFPA Guidelines)	SO%=	95%
4. Shutoff Tank Capacity TC@ shutoff % = TC x 0.95	10,000 x 0.95 =	9,500
5. Tank Level from Stick Chart for Shutoff Capacity (95%)	TL@95%=	87
6. Tank "B" Dimension B = TD - TL@95%	B= 96-87 =	9
7. Distance from top seal surface (1) to the top (inside) of the tank (2) is "A"	A=	40
8. Length of OPV top tube to (95% mark) on the A1100 is "C" - C = A+B See Picture. Measure C distance from the 95% line on valve and cut top tube	C= 40 + 9	49
9. Distance from the top seal surface (1) to the tank bottom is "D" D = Tank Dia + A	D= 96+40	136
10. OPV Assembly Overall Length OAL = D-6 inches. Screw together top and bottom tube assemblies. Measure from top tube end and cut bottom tube either straight or 45 degree at operators preference. (See diagram to insure the 6" maximum clearance is maintained)	OAL= 136-6	130

Field Confirmation Example (using the 8 foot 10,000 gallon tank)

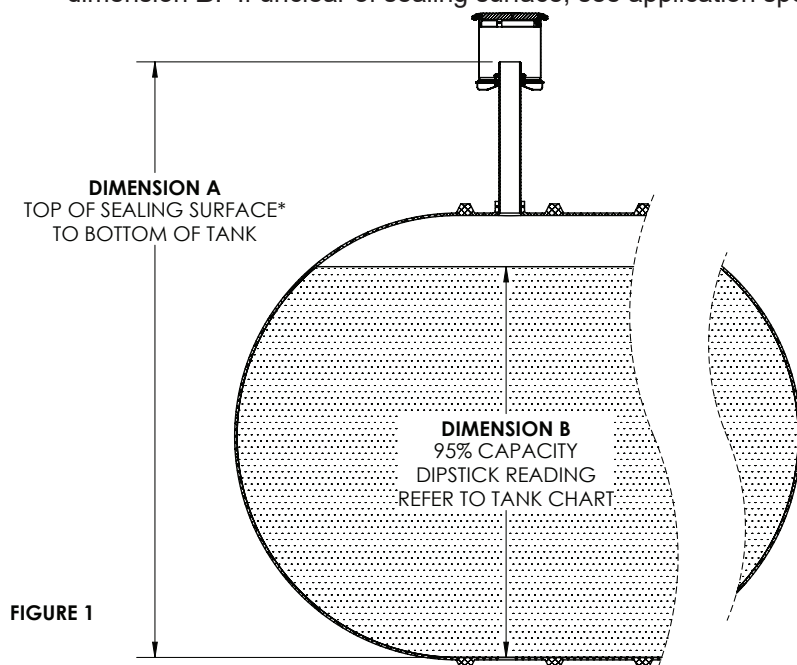
D=	136	
T=	46.25	
95% Level=	=136-46.25-3.75= 86"	This is less than the 87" shown on tank chart so it meets the 95% maximum fill level requirement
OAL=	130.5	
Tank Clearance =	=136 - 130.5 = 5.5"	This is less than the 6" maximum allowable clearance so it meets the clearance requirement

Tank Chart for a 10,000 gallon 8 foot diameter tank at 95% Capacity = 9500 gallons

In.	Ga.	In.	Ga.	In.	Ga.
1	18	41	4086	81	9026
2	50	42	4218	82	9122
3	94	43	4350	83	9214
4	140	44	4482	84	9304
5	200	45	4614	85	9390
6	260	46	4748	86	9472
7	328	47	4880	87	9552
8	400	48	5014	88	9628
9	474	49	5146	89	9700
10	554	50	5280	90	9766
11	638	51	5412	91	9828
12	724	52	5544	92	9884
13	812	53	5678	93	9934
14	906	54	5810	94	9976
15	1000	55	5942	95	10008
16	1098	56	6072	96	10026
17	1198	57	6204		
18	1302	58	6334		
19	1406	59	6464		
20	1514	60	6592		
21	1622	61	6722		
22	1722	62	6848		
23	1846	63	6976		
24	1960	64	7102		
25	2076	65	7226		
26	2194	66	7350		
27	2312	67	7472		
28	2432	68	7594		
29	2554	69	7714		
30	2676	70	7834		

Overfill Prevention Valve Installation Length Calculator and Cutting Instructions

Using a tape measure, record dimension **A** as specified in **Figure 1** below. Refer to tank manufacturer chart for dimension **B**. If unclear of sealing surface, see application specific diagrams at the end of this document.



REFER TO APPLICATION SPECIFIC DIAGRAMS TO DETERMINE POSITION OF SEALING SURFACE

Enter the dimensions in decimal values.

Dimension A: _____

Dimension B: _____

Calculate **Top Tube Height**.

Top Tube Height = Dimension A - Dimension B

Enter the Top Tube Height: _____

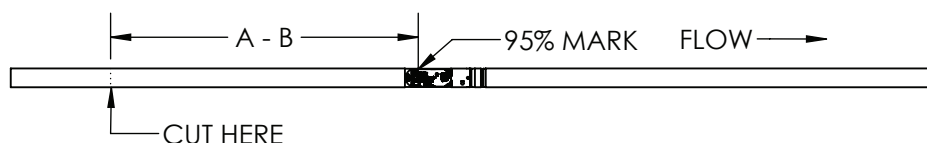
Calculate **Total Tube Length**.

Total Tube Length = Dimension A - 6"

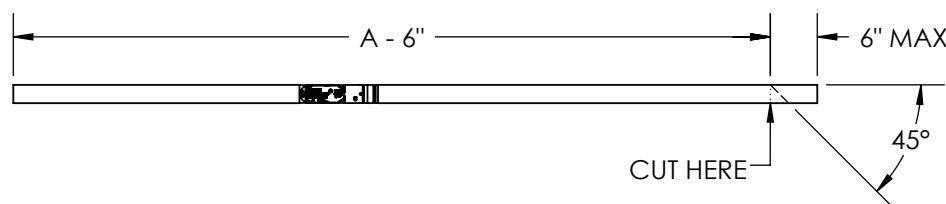
Enter **Total Tube Length**: _____

Next, find the **95% mark** on the overfill prevention valve and measure up **A - B** inches. Mark and cut the top tube at this location.

NOTE: The **Top Tube Height** must be cut **before** cutting the total tube length.



Measure down from the cut top tube **Dimension A** and subtract **6"** as shown in the figure below. Mark and cut the bottom tube at a 45 degree angle towards the top tube at this location. Do not exceed 6".



Overfill Prevention Valve Installation Length Calculator and Cutting Instructions

Example: A 20,000 gallon, 10' diameter tank is installed. **Dimension A** is measured to be 14 feet, or 168 inches. To find **Dimension B**, the tank chart is referred to.

Follow these steps to calculate Dimension B:

1. Find the actual gallonage of the tank by locating the last value of gallons on the tank chart. In this example, it is 19,782 gallons.
2. Multiply the total actual gallonage by the desired fill percentage (95% in most cases).
 $19,782 \times 0.95 = 18,793$ gallons
3. Find the closest gallonage that is less than the value calculated in step 2. The dipstick reading at this gallonage value is **Dimension B**. In this example, it is 106.25".

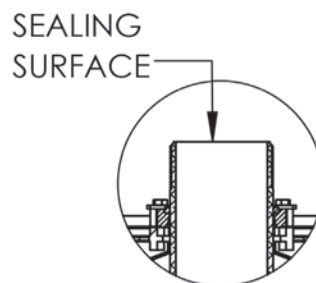
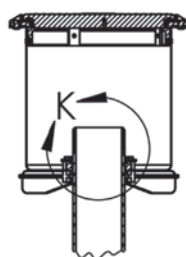
Top Tube Height: $A - B = 61.75"$

Total Tube Length: $A - 6" = 162"$

Application Specific Diagrams

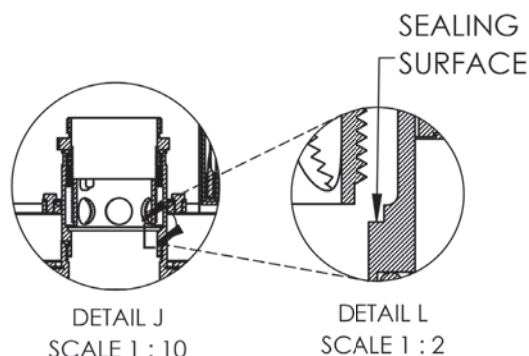
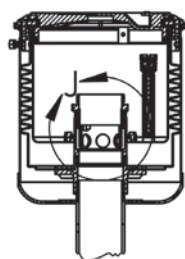
*Non-EVR Applications

Sealing surface is located at the top of the containment nipple for screw-on spill containers and at the top of the riser for slip-on spill containers.



*EVR Applications

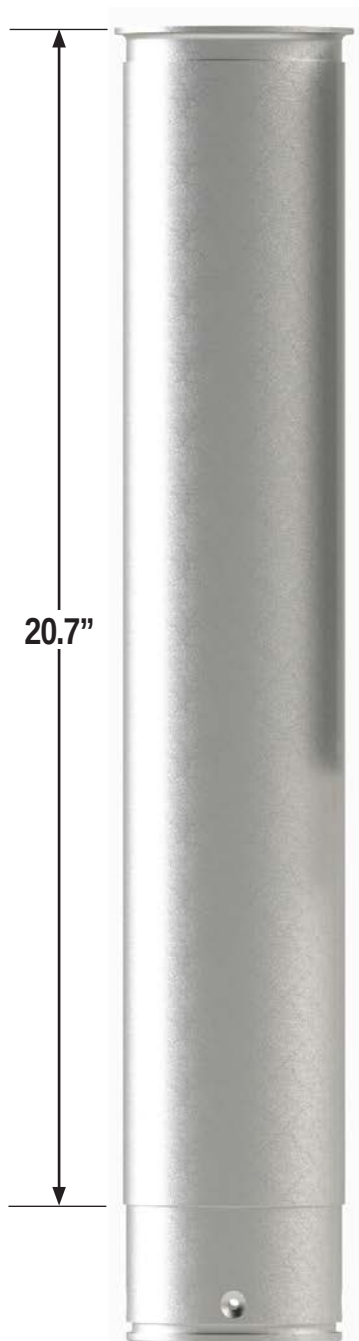
Sealing surface is located on the horizontal surface just below the riser seal.





493734SXL 493734SXXL

A1100 OPV Extended Collar Kit



20.7"

493734SXXL

Increases tube length
as much as 18" after
standard collar is
removed



10.7"

493734SXL

Increases tube length
as much as 8" after
standard collar is
removed



2.7"

Standard Collar

Collar kit includes: (4) rivets, (2) o-rings, Seal-all sealant,
indent tool, drill fixture, stainless steel extension spring and
warning plate

Material:

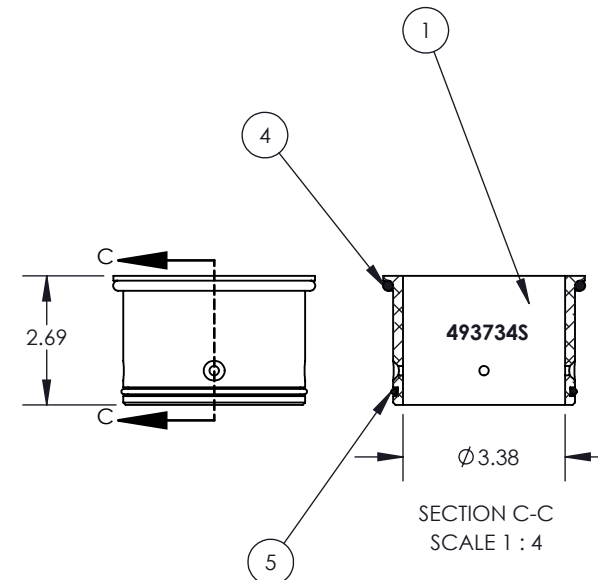
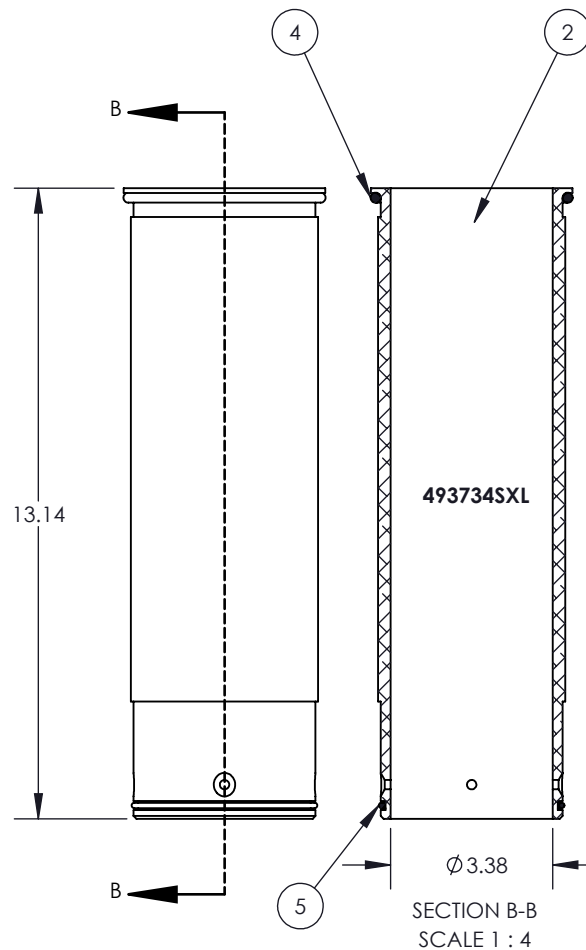
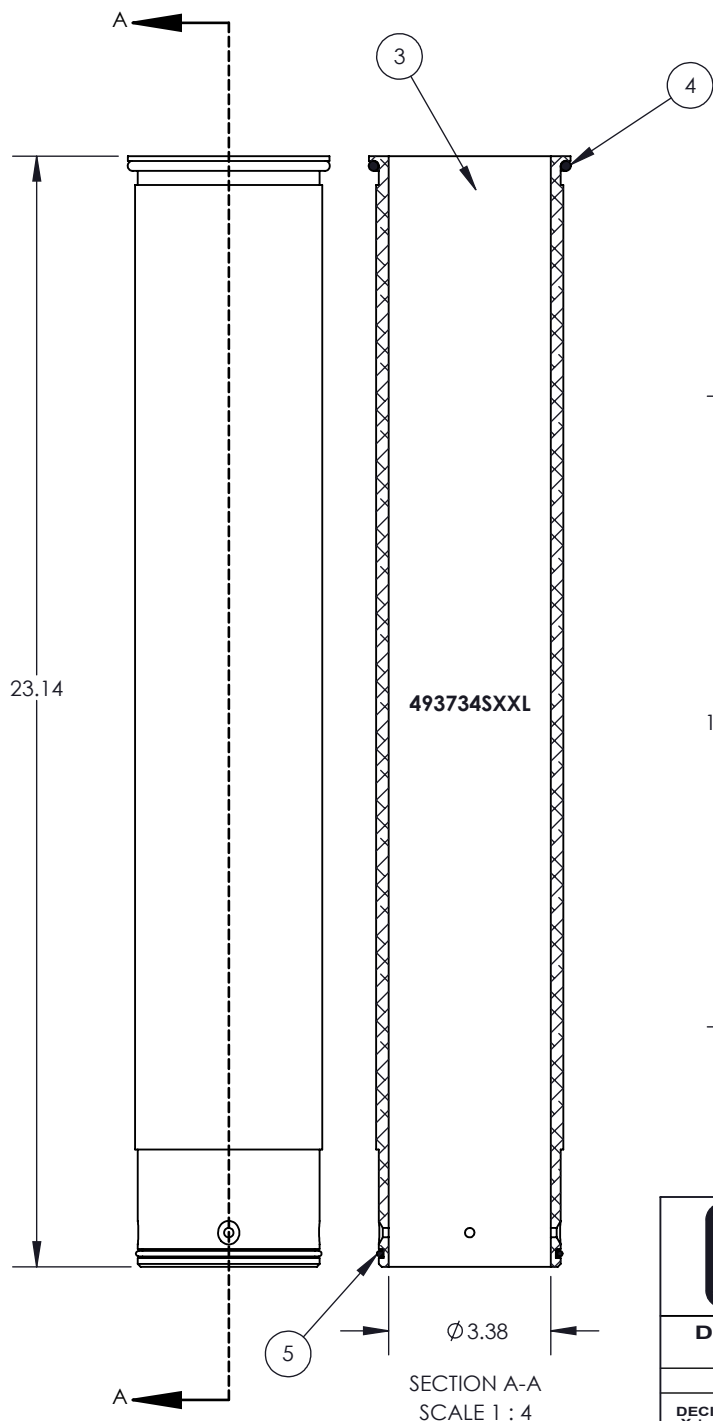
Body: Aluminum

Seals: Viton®

Viton® is a registered trademark
of the Chemours Company

Emco Wheaton Retail Corporation

2300 Industrial Park Dr. • Wilson, North Carolina 27893 • 252-243-0150 • 252-243-4603 (fax) • www.emcoretail.com



BILL OF MATERIALS		
ITEM #	PART #	DESCRIPTION
1	493734S	COLLAR DUAL POINT
2	493734SXL	COLLAR DUAL-POINT EXTRA LONG
3	493734SXXL	COLLAR DUAL-POINT 20" EXTENSION
4	569461	O-RING #346
5	569217	O-RING #256



EMCO WHEATON RETAIL CORP.
2300 INDUSTRIAL PARK DRIVE
WILSON, N.C. 27893
emcoretail.com

DO NOT SCALE DRAWING-WORK TO DIMENSIONS SHOWN
DIMENSIONS ARE IN INCHES (DIMENSIONS IN BRACKETS ARE IN MILLIMETERS)

UNLESS OTHERWISE SPECIFIED

DECIMALS .X ± .030 .XX ± .015 .XXX ± .005 ANGLES ± 1°
CASTING TOLERANCES TO INDUSTRY STANDARDS
MACHINED SURFACES 125 RMS REMOVE ALL BURRS

THE INFORMATION AND DESIGN DISCLOSED
BY AND THE COPYRIGHT IN THIS DRAWING
ARE THE PROPERTY OF EMCO WHEATON
RETAIL CORP. AND CANNOT BE USED
WITHOUT WRITTEN PERMISSION.

DRAWN BY

RCW

USED ON

A1100

CASTING NUMBER

-

A	PROPOSED	03/25/2022	RCW
REV.	DESCRIPTION	DATE	BY

PART DESCRIPTION

TOP COLLAR COMPARISON

SIZE	DRAWING NUMBER.	PAGE	REV.
A	493734SXXXMKT	1/1	A



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

December 22, 1999

Certified Mail Return Receipt Requested: Z 333 615 964

Mr. Kurt Kaul
Emco Wheaton Retail
2300 Industrial Park Drive
Wilson, North Carolina 27893

RE: File No. EQ-414, DEP Approval of the Guardian A1100
Overfill Prevention Valve pursuant to Rule 62-761.850,
Florida Administrative Code (F.A.C.)

Dear Mr. Kaul:

The Bureau of Petroleum Storage Systems has concluded its review of the Equipment Approval requests dated December 6, and 7, 1999, that were submitted for the above referenced equipment.

Based on the information provided by Emco Wheaton Retail, the Department finds that the applicant's Guardian A1100 Overfill Prevention Valve will provide environmental protection substantially equivalent to that provided by compliance with the requirements established in Rule 62-761.500(2)(d)2., F.A.C.

Pursuant to Rule 62-761.850, F.A.C., the request for the use of the above referenced product is Approved for overfill protection for underground tanks in the State of Florida.

Please be advised that the above rules are subject to change. If the above rule standards are modified in the future, this order may be modified or rescinded for future upgrades and installations. Additionally, if the product(s) shows a consistent pattern of failure(s), and therefore does not provide substantially equivalent environmental protection, the Department may rescind this order.

The Department's Order shall become final unless a timely petition for an administrative hearing is filed under sections 120.569 and 120.57, Florida Statutes (F.S.), within 21 days of receipt of this Order. Persons who have filed such a petition may seek to mediate the dispute, and

choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing and pursuing mediation are set forth below.

Persons affected by this Order have the following options:

If you choose to accept the above decision by the Department about equipment approval, you do not have to do anything. This Order is final and effective as of the date on the top of the first page of this Order.

If you choose to challenge the decision, you may do one of the following:

1. file a petition for administrative hearing with the Department's Office of General Counsel within 21 days of receipt of this Order; or
2. file a request for an extension of time to file a petition for hearing with the Department's Office of General Counsel within 21 days of receipt of this Order; such a request should be made if you wish to meet with the Department in an attempt to resolve any disputes without first filing a petition for hearing.

In addition to requesting an administrative hearing, any petitioner may elect to pursue mediation under section 120.573, F.S. within 10 days after the deadline for filing a petition.

How to Request an Extension of Time to File a Petition for Hearing

For good cause shown, pursuant to Rule 62-110.106(4), F.A.C., the Department may grant a request for an extension of time to file a petition for hearing. Such a request must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from the applicant, shall mail a copy of the request to the applicant at the time of filing. Timely filing a request for an extension of time tolls the time period within which a petition for administrative hearing must be made.

How to File a Petition for Administrative Hearing

A person whose substantial interests are affected by this Order may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57, F.S. The

petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from the applicant, shall mail a copy of the petition to the applicant applicant, at the time of filing. Failure to file a petition within this time period shall waive the right of anyone who may request an administrative hearing under sections 120.569 and 120.57, F.S.

Pursuant to Subsection 120.54(5)(b)4., F.S., and rule 28-106.201, F.A.C., a petition for administrative hearing shall contain the following information:

- a) The name, address, and telephone number of each petitioner, the name, address, and telephone number of the petitioner's representative;
- b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- c) An explanation of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;
- d) A statement of the material facts disputed by the petitioner, or a statement that there are no disputed facts;
- e) A statement of the ultimate facts alleged, including a statement of the specific facts the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- f) A statement of the specific rules or statutes the petitioner contends requires reversal or modification of the Department's action or proposed action; and
- g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Department's action or proposed action.

How to Pursue Mediation

In addition to requesting an administrative hearing, any petitioner may elect to pursue mediation. The election may be accomplished by filing with the Department a mediation agreement with all parties to the proceeding (i.e., the applicant, the Department, and any person who has filed a timely and sufficient petition for hearing). The agreement must contain all the information required by rule 28-106.404, F.A.C. The agreement must be received by the

clerk in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000 within 10 days after the deadline for filing a petition, as set forth above. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement.

Pursuant to rule 28-106.404, F.A.C., an agreement to mediate must include the following:

- (i) The name, address, and telephone number of the persons who may attend the mediation;
- (ii) The name, address, and telephone number of the mediator agreed to by the parties;
- (iii) How the costs and fees associated with the mediation will be allocated (the Bureau of Petroleum Storage Systems will not pay any of the costs of mediation);
- (iv) The agreement of the parties regarding the confidentiality of discussions and documents introduced during mediation to the extent authorized by law;
- (v) The date, time, and place of the first mediation session;
- (vi) The name of the party's representative who shall have authority to settle or recommend settlement; and
- (vii) The signature of the parties.

As provided in section 120.573, F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57, F.S., for holding an administrative hearing and issuing a final order. Unless otherwise agreed to by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons seeking to protect their substantial interests that would be affected by such a modified final decision must file their petitions within 21 days of receipt of this notice, or they shall be deemed to have waived their right to a proceeding under sections 120.569 and 120.57, F.S. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57, F.S., are resumed.

This Order is final and effective as of the date on the top of the first page of this Order. Timely filing

Mr. Kurt Kaul
December 22, 1999
Page 5 of 5

petition for administrative hearing postpones the date this Order takes effect until the Department issues either a final order pursuant to an administrative hearing or mediation settlement, or an order responding to supplemental information provided pursuant to meetings with the Department.

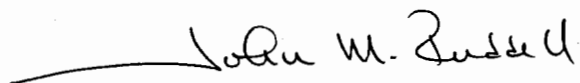
Judicial Review

Any party to this Order has the right to seek judicial review of it under section 120.68, F.S., by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this order is filed with the clerk of the Department (see below).

Questions

Any questions regarding the Department's review of your equipment approval should be directed to Farid Moghadam at (850) 488-3935. Questions regarding legal issues should be referred to the Department's Office of General Counsel at (850) 488-9314. Contact with any of the above does not constitute a petition for administrative hearing (or time extension) or agreement to mediate.

Sincerely,

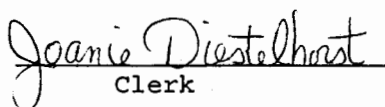


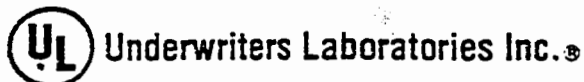
John M. Ruddell, Director
Division of Waste Management

JMR/fm

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52
Florida Statutes, with the designated
Department Clerk, receipt of which is
hereby acknowledged.

 12-22-99
Clerk Date



333 Pfingsten Road
Northbrook, Illinois 60062-2096
United States Country Code (1)
(847) 272-8800
FAX No. (847) 272-8129
<http://www.ul.com>

NOTICE OF AUTHORIZATION TO APPLY THE UL MARK



March 31, 1998

Emco Wheaton Retail Corp.
Mr. Mac Harmon
2300 Industrial Park Drive
Wilson, NC. 27893

Our Reference: MH6518

Product: Model A0060 Double Poppet Shear Valve

Gentlemen:

In accordance with your letter of we have established Project No. 98NK10281 with an Engineering cost limit of \$1,037.00 for the investigation of the subject products. We have completed our engineering investigation under the above project number and find the product complies with the applicable requirements.

This letter temporarily supplements the UL Follow-Up Services Inspection Procedure and serves as authorization to apply the UL Marking to the above product which is constructed as indicated on the attached material.

This authorization is effective for 90 days only from the date of this Notice. Records covering the product are now being prepared and will be sent to you in the near future. Products produced which bear the UL Mark shall be identical to those which were evaluated by UL and found to comply with UL's requirements. If changes in construction are discovered, authorization to use the UL Mark may be withdrawn and products that bear the UL Mark may have to be revised (in the field or at the manufacturer's facility) to bring them into compliance with UL's requirements. If you have any questions or comments concerning the foregoing, please feel free to contact us.

Sincerely,

MICHAEL KETTERLING (ex. 41728)
Engineer
Engineering Services, 416A

Reviewed by:

R. A. ZEMAN (ex. 42258)
Staff Engineer
Engineering Services, 416A



333 Pfingsten Road
Northbrook, Illinois 60062-2096
(847) 272-8800
FAX No. (847) 272-8120
MCI Mail No. 254-3343
Telex No. 6502543343

F A X T R A N S M I S S I O N

June 9, 1997

Emco Wheaton, Inc.
Mr. Matt Tosi
Fax No. (919) 243-4759



Our Reference: MH6518

Subject: Model A0061 Emergency Shutoff Valve

Dear Mr. Tosi:

In accordance with our recent telephone conversation, this letter will confirm that the subject valve is currently Listed with female and male connections in both the single and double poppet configurations. You are authorized to use the UL Listing Mark on these products constructed as described in the Procedure in accordance with the Follow-Up Service Agreements.

If you should have any questions, please feel free to contact us.

Sincerely,


R. A. ZEMAN (Ext. 42258)
Senior Project Engineer
Engineering Services, 416A

Reviewed by:


MARSHALL ISSEN
Engineering Group Leader
Engineering Services, 416A



Underwriters Laboratories Inc.*

333 Pfingsten Road
Northbrook, Illinois 60062-2096
(847) 272-8800
FAX No. (847) 272-8129
MCI Mail No. 254-3343
Telex No. 6502543343

NOTICE OF AUTHORIZATION TO APPLY THE UL MARK

March 7, 1997



Emco Wheaton, Inc.
Mr. Matt Tosi
2300 Industrial Park Drive
Wilson NC 27893

Our Reference: MH6518, 97NK7109

Product: Model A61 Emergency Shutoff Valve with Double Poppet

Dear Mr. Tosi:

We have completed our engineering investigation under the above project number and find the product complies with the applicable requirements.

This letter temporarily supplements the UL Follow-Up Services Inspection Procedure and serves as authorization to apply the UL Listing Mark to the above product which is constructed according to the attached addendum.

This authorization is effective for 90 days only from the date of this Notice. Records covering the product are now being prepared and will be sent to you in the near future.

Products produced which bear the UL Mark shall be identical to those which were evaluated by UL and found to comply with UL's requirements. If changes in construction are discovered, authorization to use the UL Mark may have to be revised (in the field or at the manufacturer's facility) to bring them into compliance with UL's requirements.

Sincerely,

R. A. ZEMAN (Ext. 42258)
Senior Project Engineer
Engineering Services, 416A

Reviewed by:

MARSHALL ISSEN
Engineering Group Leader
Engineering Services, 416A

A not-for-profit organization
dedicated to public safety and
committed to quality service

AIR RESOURCES BOARD

1102 Q STREET
P.O. BOX 2815
SACRAMENTO, CA 95812



August 19, 1991

David J. Parrish
Engineering Manager
Emco Wheaton, Inc.
4001 Weston Parkway
Cary, NC 27513

#91-16

Dear Mr. Parrish:

Certification of Emco Wheaton A1100 Guardian Overfill Prevention

You requested certification of the Emco Wheaton A1100 overfill prevention. This product was approved for use in two point installations on January 23, 1991. The A1100 overfill prevention system consists of a tube which is installed in the drop tube. For coaxial installations, an adaptor kit is available. Approval of the system for use with coaxial systems was withheld pending leak testing of the poppeted coaxial system.

The leak test consists of pressurizing the ullage space in a storage tank with dry Nitrogen gas to a pressure of ten inches and observing the rate of decay. Coaxial installations should be tested with the fill cap removed to verify the integrity of the vapor poppet. Tests conducted on a coaxial A1100 in February revealed vapor leak sources in both the overfill prevention tube and in the coaxial vapor gasket assembly. Several modifications to the design were made, and the product was retested. The results indicate that the improved design is virtually leak free. The improvements will be incorporated into all A1100 tubes.

As required by the Air Resources Board certification and test procedures, you requested the approval of the Division of Occupational Health and Safety, the Office of the State Fire Marshal and the Department of Food and Agriculture, Division of Measurement Standards. The necessary approvals have been obtained from these agencies.

I find that the use of the A1100 system will not adversely affect vapor recovery systems on which it may be installed. Therefore, the Emco Wheaton A1100 Guardian overfill prevention system is certified for use with Phase I gasoline vapor recovery systems. If you have any questions, please call Laura McKinney, Associate Air Pollution Specialist, at (916) 327-1525.

Sincerely,

James J. Morgester, Chief
Compliance Division

cc: All APCDs and AQMDs
Vapor Recovery Technical Committee Members
CAP Gasoline Marketing and Distribution Manual

**UNDERWRITERS' LABORATORIES OF CANADA**

75 YEARS OF MAKING YOUR SAFETY OUR FIRST CONCERN

7 Crouse Road, Scarborough, Ontario, Canada M1R 3A9

Telephone: (416) 757-5250 ext. 61233

Fax: (416) 757-1781 - Engineering

(416) 757-8915 - Standards and Publications/Accounting

FAX TRANSMISSION

1

FROM: Gordana NikolicNumber of page(s): _____
(Including the cover page)Department/Ext.: Engineering / 61233Date 16/ 04 / 1998 (DD/MM/YY)**FAX TO:** Mr. Charles S. PearsonFax: (919) 243-4759Company: Emco Wheaton, Industrial Retail Corp.**SUBJECT:** Overfill Protection Device, Model A1100ULC File: CMH1602Appl.: 27675

Further to your request of March 27, 1998 and investigation of the above overfill protection device, we confirm the following:

The investigation of the subject product initiated by File CMH1602, Application 27675 has been completed. The object of the investigation was to determine compliance of this product with requirements of Underwriters' Laboratories of Canada as described in ULC/ORD-C58.15, Overfill Protection Devices for Flammable Liquid Storage Tanks, particularly endurance test.

As you are aware the examination and testing of the subject overfill protection device has been completed with acceptable results. The above product was capable of withstanding 1500 cycles of normal operation, therefore, in compliance with the current endurance test requirements of Underwriters' Laboratories of Canada.

Based on the satisfactory status of the test results and at your request, we are proceeding to initiate a revision of the Emco Wheaton Files. Copies of our revised Listing Text and Follow-Up Service Procedure will be sent to you as soon as they are available for release.

Should you have any additional questions on the forgoing, please do not hesitate to communicate with us.



Air Resources Board

John D. Dunlap, III, Chairman
2020 L Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



May 4, 1998

Scott Wilson
Emco Wheaton
374 Upland Drive
Tukwila, WA 98188

Dear Mr. Wilson:

Clarification of Approval Letter 91-16 for A1100

This is in response to your April 10 letter in which you requested California Air Resources Board (CARB) clarification regarding the A1100 Guardian Overfill Prevention certified in Approval 91-16.

As stated in Approval Letter 91-16, the coaxial version of the A1100 is certified.

If you have any questions or need assistance, please contact Joe Guerrero at (916) 324-7343 or Laura McKinney at (916) 327-1525.

Sincerely,

James J. Morgester, Chief
Compliance Division

California Environmental Protection Agency

Printed on Recycled Paper



INCORPORATED 1920

UNDERWRITERS' LABORATORIES OF CANADA

In Receiving
Please Refer to

CMH1602
25430/25433

June 27, 1997

Mr. Charles S. Pearson
Vice President
Emco Wheaton Retail Corp.
2300 Industrial Park Drive
Wilson, NC 27893
U.S.A.

Subject: Overfill Protection Device for Flammable Liquid Storage Tanks

Dear Mr. Pearson:

Our investigations of the subject product incorporating the changes described in your letters dated March 27, 1997 have been completed with acceptable results.

A copy of the Listing Report will follow shortly.

Our records have been revised and we are enclosing material for inclusion in your copy of the following Procedure:

<u>File No.</u>	<u>Vol.</u>	<u>Page No.</u>	<u>Fig. No.</u>	<u>Date</u>
CMH1602	I	3, 10, 11 & 12		June 25, 1997
CMH1602	I		15, 32, 34 & 61	June 13, 1997

Please review this material and advise us promptly of any errors or omissions.

If we may be of further assistance, please do not hesitate to communicate with us.

Yours very truly,

B. Schueler, CET
Engineering Assistant
Appliances and Equipment

BS/hf
Encls.

Integral Marker Assurance Service Procedure - Underwriters' Laboratories of Canada

File No. CMH1602
Volume 1

- 3 -

Procedure Issued July 8, 1996
This page dated June 25, 1997PRODUCT COVERED:

Model A1100 Guardian, Type B overfill protection device for use with petroleum products including fuel blends with a maximum content of 15% MTBE. Maximum flow 500 L/min, maximum pressure 45 kPa.

COMPLIANCE

The product described herein is judged to be in compliance with the current requirements of Underwriters' Laboratories of Canada for this class of equipment, as included under ULC/ORD-C58.15-1992 Overfill Protection Devices for Flammable Liquid Storage Tanks.

GENERAL CHARACTER AND USE

This device is designed to be installed in the fill pipe or riser of an underground petroleum storage tank.

It is intended to prevent overfilling of the underground tank to the point of leakage to the environment, during the filling process.

When the liquid level rises to 90% of tank capacity as established by the installer the valve mechanism is released and at 95% of the tank capacity closes automatically with the flow. The hose kick which occurs as a result of the valve closure signals the operator that the tank is full and to close the delivery valve.

The overfill device has "drain bleed valve", a by pass valve that permits a reduced flow rate of approximately 19 L/min, allowing the delivery hose to drain.

Should the tank level reach 98% capacity, the bypass valve closes preventing additional liquid from entering the tank until the level drops below the reset point.

This product is intended to be installed in accordance with the applicable provisions of the National Fire Code of Canada and the Environmental Code of Practice for Underground Storage Tank Systems Containing Petroleum Products.

This Procedure contains information for the guidance of the manufacturer of the product described therein and of Representatives and Inspectors of Underwriters' Laboratories of Canada, and is not to be used for any other purpose. It is loaned with the understanding that it is not to be copied, either wholly or in part, and will be returned to Underwriters' Laboratories of Canada, on request.

Reviewed by GN/nd
PROC 2504

This is a revised page, and
replaces page 3 dated July 8, 1996
Changes indicated by *

Underwriters' Laboratories of Canada



INCORPORATED 1920

UNDERWRITERS' LABORATORIES OF CANADA

General Offices and Testing Station 7 CROUSE ROAD, SCARBOROUGH, ONTARIO, CANADA M1R 3A9

Telephone (416) 757-3611 Fax (416) 757-9540

In Reply,
Please Refer to

File: CMH1602 -

Issued: October 13, 1995

Volume I

INTEGRAL MARKER ASSURANCE SERVICE PROCEDURE

for

OVERFILL PROTECTION DEVICE FOR FLAMMABLE LIQUID STORAGE TANKS

LISTEE: Emco Wheaton Inc.
3800 Gateway Centre Blvd., Ste.301
Morrisville, NC U.S.A. 27560

APPLICANT: Same as Listee

MANUFACTURER: Emco Wheaton Inc.
2300 Industrial Park Drive
Wilson, NC U.S.A. 27894

INSPECTIONS AT: Same as Manufacturer

This Procedure authorizes the use of the ULC Integral Marker, consisting of the letters "ULC" in a circle, on products when constructed, tested and found to be in compliance with requirements of this Procedure and in accordance with the terms of the Listing Agreement.

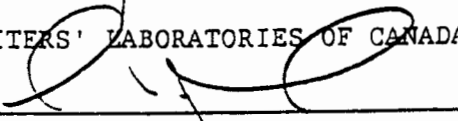
It is the responsibility of the Listee to make sure that only products meeting the aforementioned requirements bear the Integral Marker of Underwriters' Laboratories of Canada. Proposed changes or additions are required to be submitted to the Engineering Department of Underwriters' Laboratories of Canada for review. If the changes or additions are judged to be acceptable, the Procedure will be revised to authorize the use of the ULC Integral Marker on such product.

The Procedure contains confidential information for the guidance of the Listee and Manufacturer and the Representatives of Underwriters' Laboratories of Canada and is not to be used for any other purpose. It is loaned with the understanding that it is not to be copied either wholly or in part and that it will be returned to Underwriters' Laboratories of Canada upon request.

This PROCEDURE, together with any subsequent revisions, is the property of UNDERWRITERS' LABORATORIES OF CANADA and is not transferable.


G. Nikolic, P.Eng
Project Engineer

UNDERWRITERS' LABORATORIES OF CANADA


S. J. Pople, P.Eng
Managing Engineer



California
Environmental
Protection
Agency



Air Resources Board

P.O. Box 2815
2020 L Street
Sacramento, CA
95812-2815



Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

September 10, 1996

Skip Orr
District Manager
Emco Wheaton, Inc.
District Office
7178 Canelo Hills Dr.
Citrus Heights, CA 95610

Dear Mr. Orr:

96-27

Emco Wheaton A1100-57 Phase I Drop Tube Approval

Thank you for your letter dated August 29, 1996, in which you requested a variant to California Air Resources Board (CARB) Approval Letter #95-9-A. Approval Letter #95-9-A granted approval of Emco Wheaton's A1100-55 and A1100-56 drop tubes. Both drop tubes are identical except for the overall length: the A1100-55 is 13 feet in length and the A1100-56 is 15 feet in length. Your proposed variant is the A1100-57 drop tube, which identical to the A1100-55 and A1100-56 except that it is 17 feet in overall length.

The A1100 Series drop tubes are intended for use with two point Phase I vapor recovery systems. The units shall be installed in conformity with the manufacturer's instructions and all applicable codes.

Based upon review of the submitted drawings and prior approval of similar drop tubes, I find that the Emco Wheaton A1100-57 Phase I drop tube when installed with the manufacturer's instructions will not adversely affect the performance of vapor recovery systems on which it is installed. Therefore, the Emco Wheaton Incorporated A1100-57 two point overfill prevention type drop tube is certified for use with all CARB certified two point Phase I vapor recovery systems.

If you have any questions or wish to discuss this, please call Paul Thalken at (916) 445-0383.

Sincerely,

James J. Morgester, Chief
Compliance Division

cc: Mr. Jim Johnston, Chairman,
CAPCOA Vapor Recovery Committee

Mr. Gary Hunter, Manager,
CARB Compliance Assistance Section



Department of Environmental Protection

2600 Blair Stone Road ♦ Tallahassee, Florida 32399-2400

DEP Form: 62-761.900(9)

Form Title: Storage Tank Equipment

Registration Form

Effective Date: January 2017

Incorporated in Rule 62-761.850, F.A.C.

Storage Tank Equipment Registration Form

Fill out completely

General Information

Company Name: Emco Wheaton Contact Name: Wayne Boyd
Company Address: 2300 Industrial Park Dr City: Wilson, NC Zip: 27893
E-mail: ewb@emcoretail.com Contact Number: 252.243.8261
Product Name: Overfill Prevention Valve
Model Number(s): A1100E, A1100T and A1100TE Product Type: Overfill Prevention Valve
Rule(s) citation within Chapter 62-761, or 62-762, F.A.C. that registration is being requested: _____

Write a brief description of equipment registration request including product limitations:

Add E85, testable and E85 testable variant overfill prevention valves to current EQ-414

Information Checklist

	Yes	No	N/A
1. Third-party Certification by a Nationally Recognized Testing Laboratory?	☒	☐	☐
2. Documentation of third-party evaluation that the equipment meets DEP Rules?	☐	☒	☐
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?	☐	☒	☐
4. Installation instructions included?	☒	☐	☐
5. Technical information and drawings included?	☒	☐	☐
6. Annual Operability Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702 F.A.C.)?	☒	☐	☐
7. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?	☒	☐	☐
8. Has the product been approved or registered in other countries or states? (If so provide list)	☐	☒	☐
9. Any requirements for company-certified installers or trainers?	☐	☒	☐
10. Was this product(s) previously approved or registered by the Department?	☒	☐	☐
If yes, please specify the Equipment Number: EQ- EQ-414			
	☒	☐	☐
11. Any changes or modifications to the equipment since the last submittal to DEP?	☒	☐	☐

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@dep.state.fl.us, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:

The A1100 overfill prevention valves are used in UST applications for both direct and remote-fill applications in dual point and coaxial installations. The "E" variants have been added for E85 or B20+ biodiesel applications and we added a testable "T" variant to allow testing the OPV from grade without removing the OPV.

Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Wayne Boyd - Director of Engineering and Quality

Printed Name and Title

Wayne Boyd

Signature

Digitally signed by Wayne Boyd
Date: 2018.07.18 07:54:56 -04'00'

July 17, 2018

Date

For Department Use Only:

Date Application Received: 7/17/2018 Renew by 7/18/2023 Application complete: Yes: ☒ No: ☐

EQ- **414A**

Date of complete or incomplete letter sent: 7/18/2018 Date of entry to the DEP Equipment Registration List: 7/18/2023

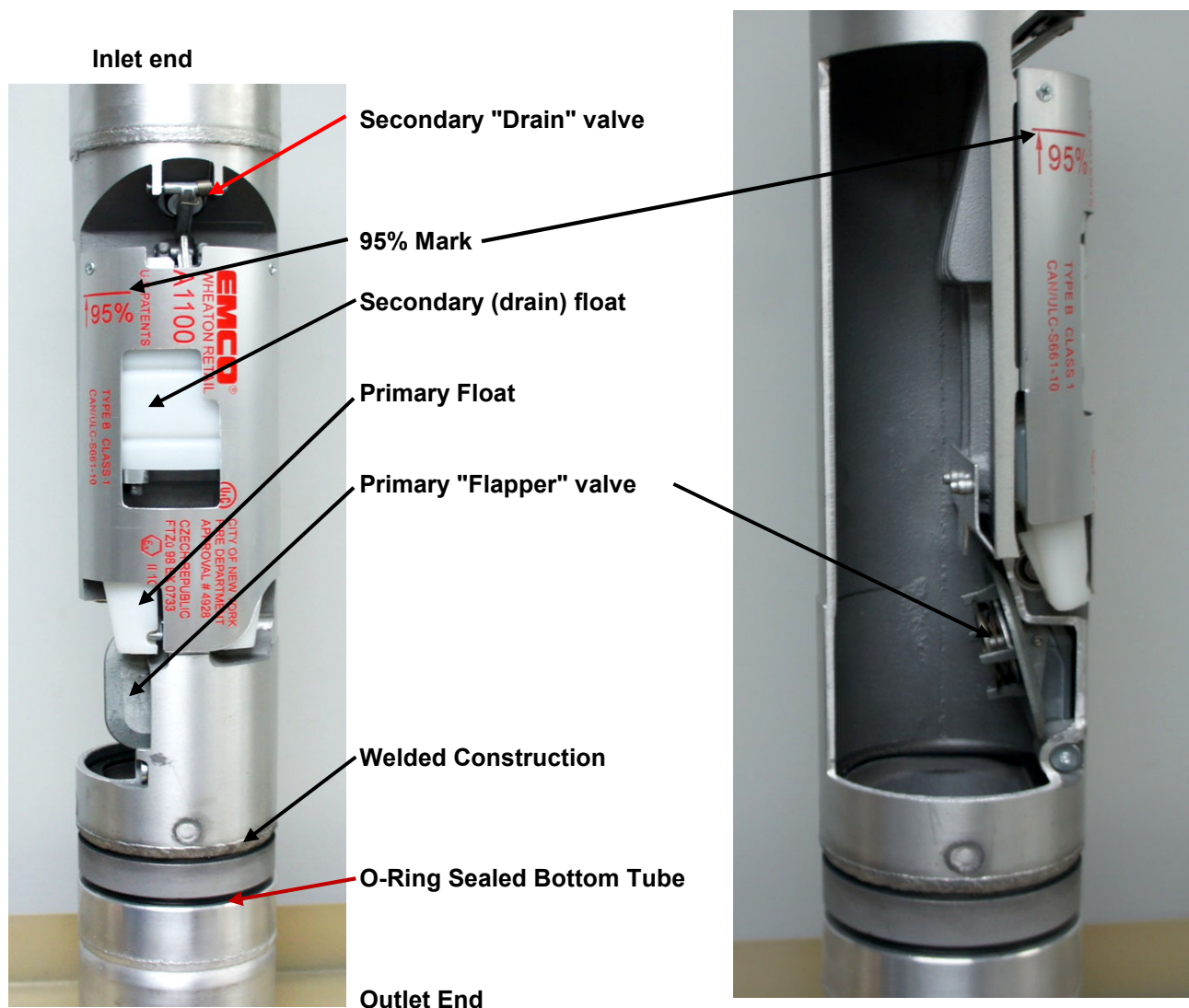
Subject: A1100 Overfill Valve Operation Details

Date: March 13, 2018

By: Wayne Boyd

Operation Summary

The Emco Wheaton A1100 overfill prevention valve is designed to provide primary shutoff at approximately 92% of tank capacity followed by complete shutoff at a maximum capacity of 95%. The valve flowrate drops dramatically from 300 GPM to less than 10 GPM when the primary float is tripped (at the 92% tank level) and the flapper valve closes against a molded viton rubber seat. This closure sends a strong pulse in the fill hose alerting the fuel tanker driver to close the fuel valve. The A1100 is equipped with a drain valve that allows the hose to drain quickly (approximately 6-8 GPM). If the fuel supply has not been shutoff, and the secondary float is raised (at the 95% tank level), the drain valve seals off completely allowing no more fuel into the tank. A cut-away valve is shown below to detail the key functions and components of the overfill valve.



Primary Valve Closure - Flapper Valve

Flapper valve (normal position)



Primary float (shown raised - releasing the flapper valve)

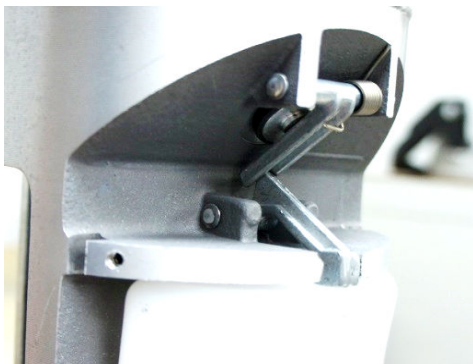


Flapper valve shown closed against viton seal



Secondary Valve Operation - Drain Valve

Drain Valve shown in the normal (open) position in the left and center pictures. Shown with and without the cover for clarity. The right picture shows the secondary (drain valve) float raised thus closing the drain valve and completely stopping the flow into the tank.



Secondary Float (manually raised) closing the drain lever and stopping flow through the drain valve

Assembly Details: Top Collar and Bottom Tube

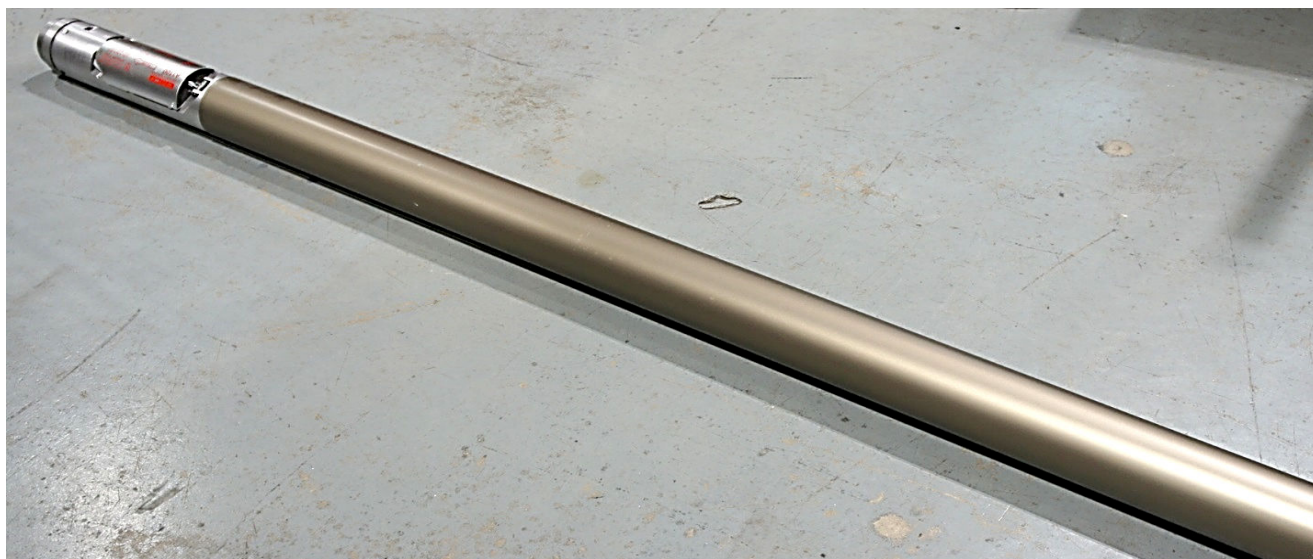
Top Collar: field installed to the required length using sealed rivets and Nitrile O-Ring to seal on the Riser Pipe for vapor tight tank testing



Bottom Tube: field installed after cutting to the proper length. O-ring seal and showing welded construction to insure vapor tightness



The A1100 is available with a gold anodized top tube to prevent corrosion in the riser pipe

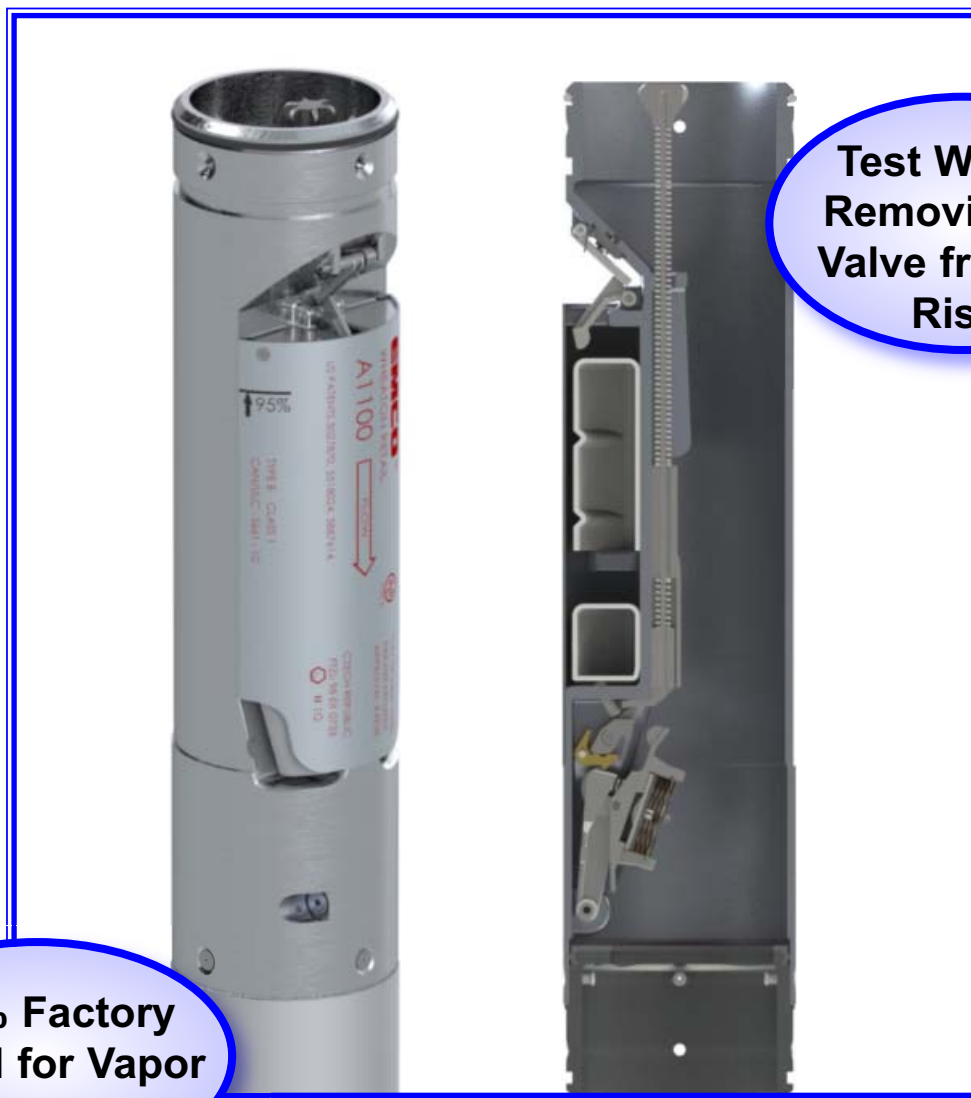




A1100-T

Testable Overfill
Prevention Valve

New!! Testable Overfill Prevention Valve



**Test Without
Removing the
Valve from the
Riser**

**100% Factory
Tested for Vapor
Tightness**

EMCO WHEATON RETAIL CORPORATION

2300 Industrial Park Drive • Wilson, North Carolina 27893 • 252-243-0150 • 252-243-4603 (fax) • www.emcoretail.com



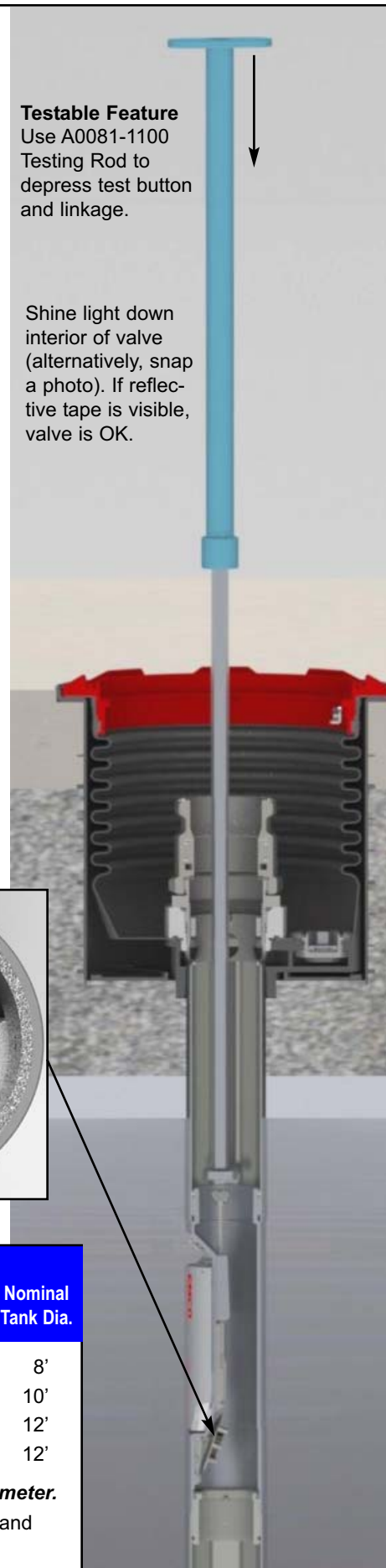
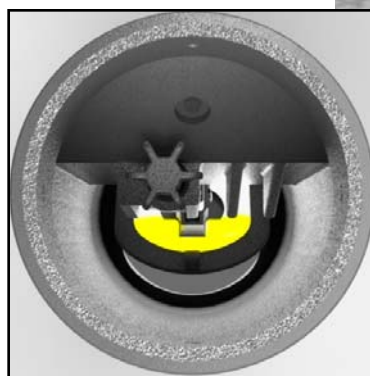
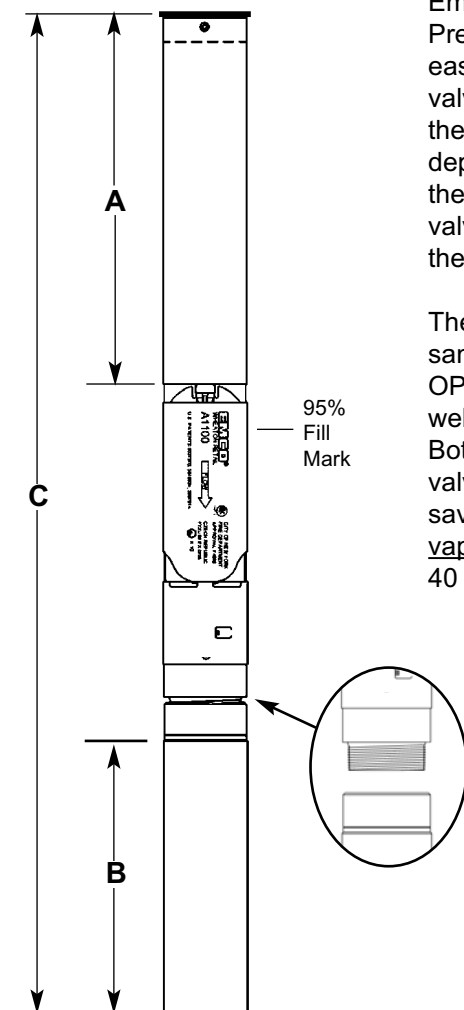
A1100-T Testable OPV

Emco's new A1100-T Testable Overfill Prevention Valve allows for quick and easy testing without removing the valve from the tank riser. Simply use the A0081-1100 Testing Rod to depress the test button installed on the valve, and shine a light inside the valve - if the reflective tape is visible, the valve is operational.

The testable A1100-T OPV uses the same proven technology as the A1100 OPV Series. Assemblies are factory welded and 100% factory tested. Bottom tube screws to top tube/ valve assembly - No Epoxy. This saves time in the field and assures a vapor tight assembly to meet the EPA 40 CFR Part 63 requirements.

Testable Feature
Use A0081-1100
Testing Rod to
depress test button
and linkage.

Shine light down
interior of valve
(alternatively, snap
a photo). If reflect-
ive tape is visible,
valve is OK.



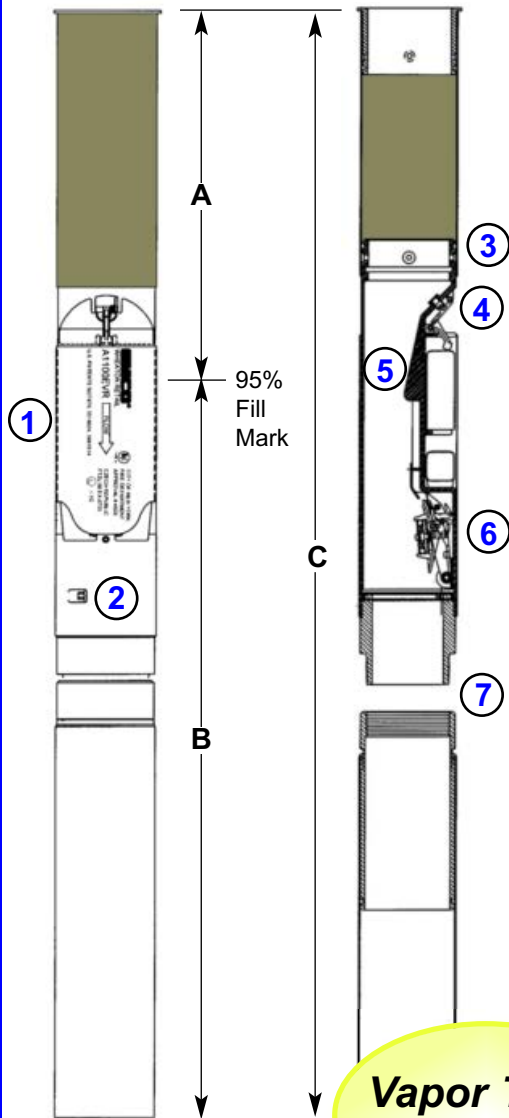
Model No.	Description	Top Tube Length A	Bottom Tube Length B	Overall Length C	Max. Burial Depth	Nominal Tank Dia.
A1100EVR-055T	Testable Vapor-Tight OPV	70"	82"	167"	6.0'	8'
A1100EVR-056T	Testable Vapor-Tight OPV	82"	92"	191"	7.0'	10'
A1100EVR-057T	Testable Vapor-Tight OPV	82"	120"	217"	6.8'	12'
A1100EVR-058T	Testable Vapor-Tight OPV	120"	120"	255"	10.0'	12'

The A1100 Overfill Prevention Valve is not recommended for tanks under 6.5' in diameter.
Maximum burial depth assumes 95% shut-off and 6" clearance between top of drop tube and inside bottom of containment manhole lid.

Emco Wheaton Retail Corporation

2300 Industrial Park Drive • Wilson, North Carolina 27893 • 252-243-0150 • 252-243-4603 (fax) • www.emcoretail.com

A1100EVR-056CF OPV Assembly



Top tube is anodized (champagne color for easy identification), to prevent corrosion build-up between tube and riser pipe.

Provides tank with automatic fuel shutoff at 95% capacity

- 1 Floats contained in protective sleeve**
Insures damage-free installation & removal.
No hinged legs or exposed floats to hang up.
- 2 Plug socket** Allows manual testing of flapper valve assembly in field.
- 3 Top tube-to-valve interface factory welded, sealed and tested** for vapor-tight performance
- 4 Secondary float bleed valve with Viton® seal**
Allows fast hose drainage.
- 5 Diverter fins protect the flapper valve**
Allows damage-free stick gauging at any fluid level.
- 6 Automatic valve resetting function**
Positions flapper out of the flow stream.
Allows immediate stick gauging after fill.
- 7 Base of overfill valve is threaded and factory welded to bottom tube incorporating Viton® seals** for vapor-tight performance

Viton® is a registered trademark of DuPont Dow Elastomers.

**Vapor Tight
No Epoxy**



**CARB E.O.
VR-105**

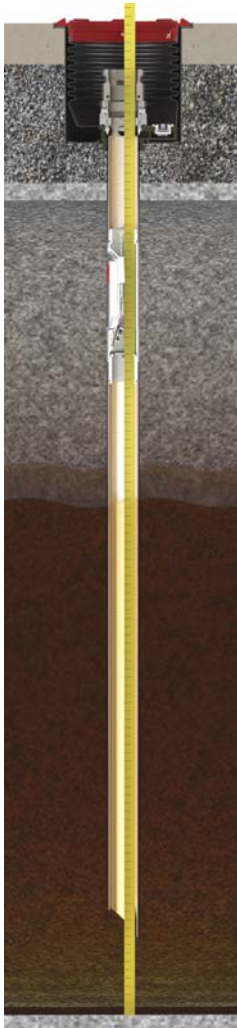
Model No.	Description	Upper Length A	Lower Length B	Overall Length C	Max. Burial Depth	Nominal Tank Dia.	Weight
A1100EVR-056CF	Dual Pt Screw-Together	85"	107"	192"	7.0'	10'	23.7 lbs.
<i>Custom lengths are available upon request</i>							
Accessories							
566675	Drilling Fixture						





Field Confirmation Protocol for Proper 95% Shut-off Level Installation of Emco Wheaton Retail A1100-T Testable Overfill Prevention Valve

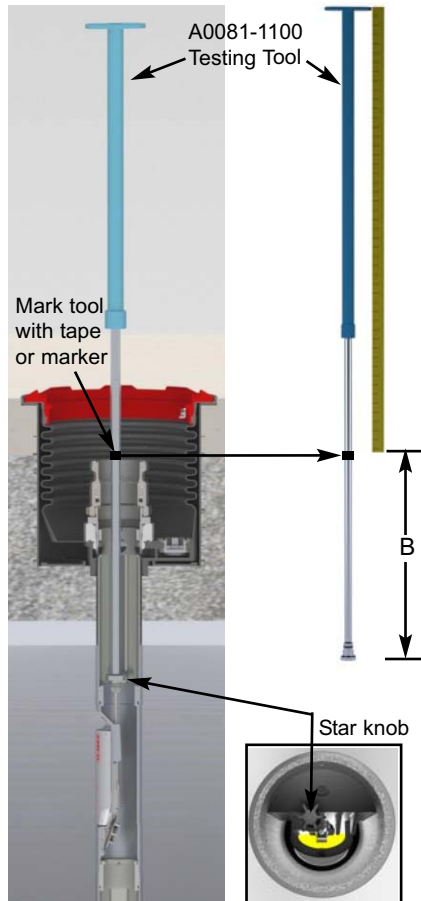
Measurement A



- 1) Extend tape measure to bottom of tank and record distance to the top of the fill adapter.

This is distance A.

Measurement B



- 1) Place test tool on star knob. Do not apply force to move knob.
- 2) Mark tool at the top of the fill adapter
- 3) Remove tool and measure from mark to end of tool.

This is distance B.

Measurement C

Measurement C is the distance from the bottom of the tank to the closing flapper on the valve. This distance should correspond to the 95% fill dimension of the tank.

$$C = A - B - 3.75"$$

Example:

8' diameter 10,000 gallon tank

$$A = 136"$$

$$B = 46.25"$$

$$C = 136 - 46.25 - 3.75$$

$$C = 86"$$

Compare installed shut-off measurement (C) to the manufacturer's tank chart.

10,000 gallons x .95 (95%) = 9500 gallons.
Find fluid length in the tank matching 9500 gallons

9500 gallons would be between 86" and 87".
Since above measurement C is 86", the valve is installed to shut off slightly before the 95% requirement.

1	18	41	4086	81	9026
2	50	42	4218	82	9122
3	94	43	4350	83	9214
4	140	44	4482	84	9304
5	200	45	4614	85	9390
6	260	46	4748	86	9472
7	328	47	4880	87	9552
8	400	48	5014	88	9628
9	474	49	5146	89	9700
10	554	50	5280	90	9766
11	638	51	5412	91	9828
12	724	52	5544	92	9884
13	812	53	5678	93	9934
14	906	54	5810	94	9976
15	1000	55	5942	95	10008
16	1098	56	6072	96	10026
17	1198	57	6204		
18	1302	58	6334		
19	1406	59	6464		
20	1514	60	6592		
21	1622	61	6722		
22	1722	62	6848		
23	1846	63	6976		
24	1960	64	7102		
25	2076	65	7226		
26	2194	66	7350		
27	2312	67	7472		
28	2432	68	7594		
29	2554	69	7714		
30	2676	70	7834		

A1100T Overfill Prevention Valve Calculation and Field Confirmation Sheet

This calculation sheet is to document the dimensions needed for proper installation and should be used only with the instructions. This sheet assumes 95% maximum fill based on NFPA30 guidelines. Length measurements are in inches. Contact the local Authority Having Jurisdiction (AHJ) to determine all regulatory requirements regarding fill capacity.

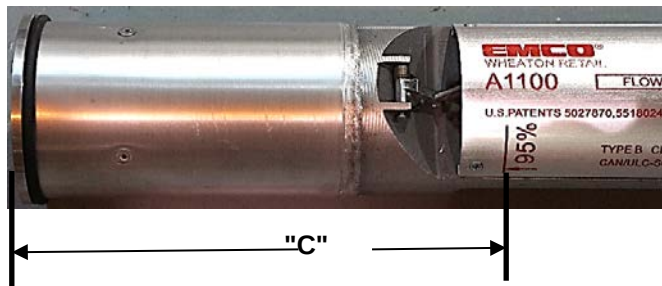
For field confirmation, the tank diameter must be known and a tank specific tank chart is helpful.

Installation Calculations

1. Tank Diameter is TD	TD= _____
2. Tank Capacity is TC	TC= _____
3. Desired Shutoff Percentage (Note NFPA Guidelines)	SO%= _____
4. Shutoff Tank Capacity TC@ shutoff % = TC x 0.95	_____
5. Tank Level from Stick Chart for Shutoff Capacity (95%)	TL@95% _____
6. Tank "B" Dimension B = TD - TL@95%	B= _____
7. Distance from top seal surface (1) to the top (inside) of the tank (2) is A. See diagram below for manway style tanks. The manway height (H) must be known and used in the Calculation A = H+J. The H dimension is typically 5-7 inches)	A= _____
8. Length of OPV top tube to (95% mark) on the A1100 is C - C = A+B See Picture. Measure C distance from the 95% line on valve and cut top tube	C= _____
9. Distance from the top seal surface (1) to the tank bottom is "D" D = Tank Dia + A	D= _____
10. OPV Assembly Overall Length OAL = D-6 inches. Screw together top and bottom tube assemblies. Measure from top tube end and cut bottom tube either straight or 45 degree at operators preference. (See diagram to insure the 6" maximum clearance is maintained)	OAL= _____

1. The sealing surface refers to the location of the OPV collar sealing point. It may be the riser pipe or the seal surface built in to some spill buckets.

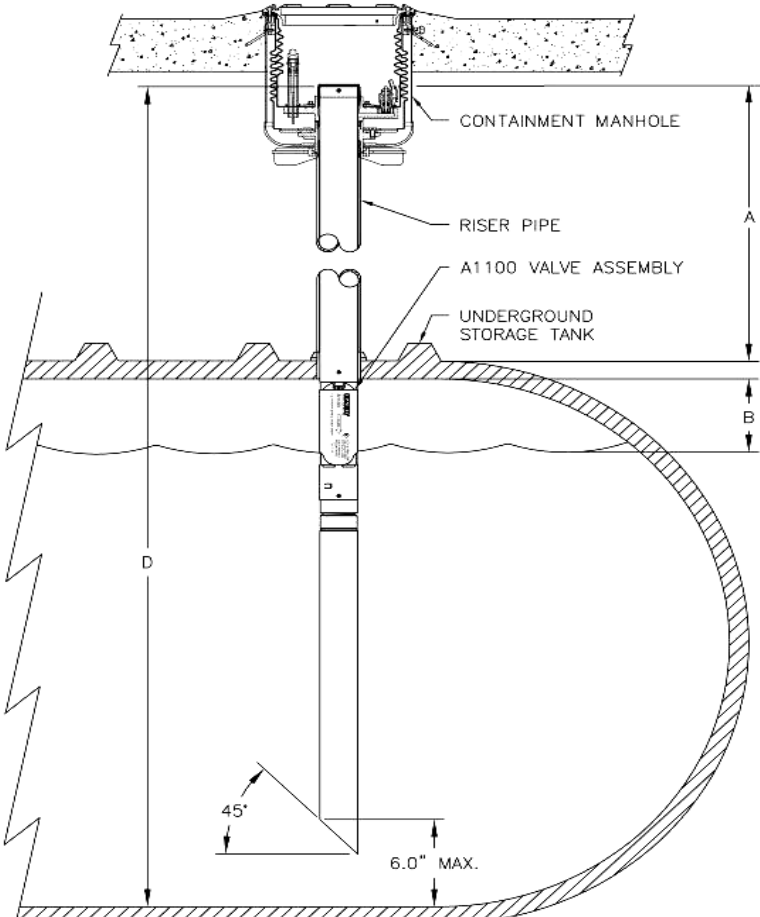
2. If the tank uses a manway, be sure to use the tank top for measurement and not the top of the manway as shown in the diagram.



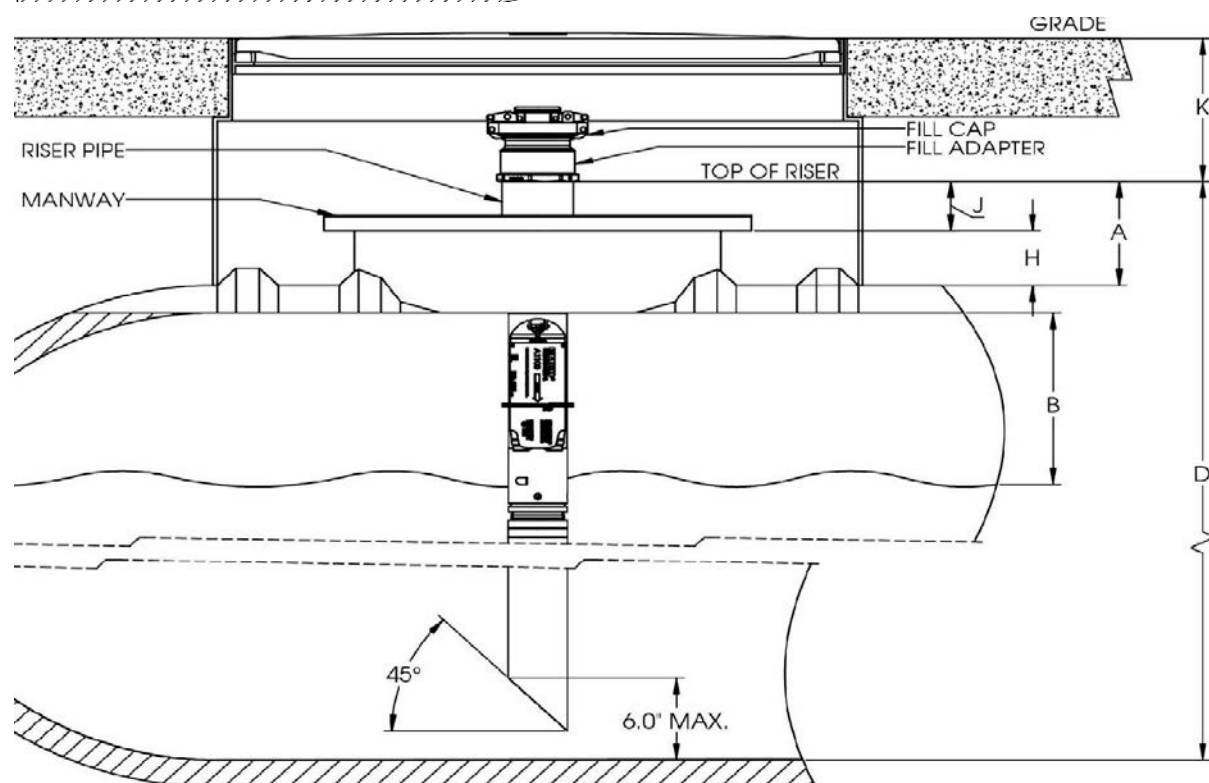
Field Confirmation Calculations

Confirm 95% Mark: Measure from the Fill Adapter to the Tank Bottom. (This is "D" dimension). Now measure from the fill adapter to the Star Knob using the A0081-1100 (This is dimension "T") by resting the tool on the Star Knob, marking the tool at the fill adapter with a marker or tape. The 95% tank level will be "D" - "T" - 3.75". This dimension must be less than or equal to the dimension on the tank chart for the 95% fill level.	TL@95% Actual = D - T - 3.75 = _____
Confirm OPV Assembly Bottom Clearance: Measure from the Fill Adapter to the bottom of the drop tube using a tape measure. This should be done at various positions of the tube to insure the shortest length is found (in case of an angled bottom cut). Subtract this dimension from "D" dimension in the step above. The difference must be 6' or less.	OAL Actual = _____ D - OAL = _____

Typical Spill Containment Manhole



Manway Style Tank



This is an example shown with an 8 foot diameter 10,000 gallon tank

1. Tank Diameter is TD	TD=	96
Revision C 3-13-2018		

2. Tank Capacity is TC	TC=	10,000
3. Desired Shutoff Percentage (Note NFPA Guidelines)	SO%=	95%
4. Shutoff Tank Capacity TC@ shutoff % = TC x 0.95	10,000 x 0.95 =	9,500
5. Tank Level from Stick Chart for Shutoff Capacity (95%)	TL@95% =	87
6. Tank "B" Dimension B = TD - TL@95%	B= 96-87 =	9
7. Distance from top seal surface (1) to the top (inside) of the tank (2) is "A"	A=	40
8. Length of OPV top tube to (95% mark) on the A1100 is "C" - C = A+B See Picture. Measure C distance from the 95% line on valve and cut top tube	C= 40 + 9	49
9. Distance from the top seal surface (1) to the tank bottom is "D" D = Tank Dia + A	D= 96+40	136
10. OPV Assembly Overall Length OAL = D-6 inches. Screw together top and bottom tube assemblies. Measure from top tube end and cut bottom tube either straight or 45 degree at operators preference. (See diagram to insure the 6" maximum clearance is maintained)	OAL= 136-6	130

Field Confirmation Example (using the 8 foot 10,000 gallon tank

D=	136	
T=	46.25	
95% Level=	=136-46-3.75= 86"	This is less than the 87" shown on tank chart so it meets the 95% maximum fill level requirement
OAL=	131.5	
Tank Clearance =	=136 - 131.5 = 5.5"	This is less than the 6" maximum allowable clearance so it meets the clearance requirement

Tank Chart for a 10,000 gallon 8 foot diameter tank at 95% Capacity = 9500 gallons

In.	Ga.	In.	Ga.	In.	Ga.
1	18	41	4086	81	9026
2	50	42	4218	82	9122
3	94	43	4350	83	9214
4	140	44	4482	84	9304
5	200	45	4614	85	9390
6	260	46	4748	86	9472
7	328	47	4880	87	9552
8	400	48	5014	88	9628
9	474	49	5146	89	9700
10	554	50	5280	90	9766
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24	1960	64	7102		
25	2076	65	7226		
26	2194	66	7350		
27	2312	67	7472		
28	2432	68	7594		
29	2554	69	7714		
30	2676	70	7834		

**EGVV7.MH21164****Tank Accessories for Flammable and Combustible Liquids Certified for Canada**[Page Bottom](#)**Tank Accessories for Flammable and Combustible Liquids Certified for Canada**[See General Information for Tank Accessories for Flammable and Combustible Liquids Certified for Canada](#)**EMCO WHEATON RETAIL CORP**

MH21164

2300 INDUSTRIAL PARK DR SE
WILSON, NC 27893-9316 USA

Overfill protection device, Class 1, for use with flammable and combustible liquids, in nominal pipe sizes (NPS) 4, and maximum pressure 50 kPa., Model(s) A1100 Guardian, may be followed by suffix T (Testable)

[Last Updated](#) on 2017-12-11[Questions?](#)[Print this page](#)[Terms of Use](#)[Page Top](#)

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When the UL Leaf Mark is on the product, or when the word "Environment" is included in the UL Mark, please search the [UL Environment database](#) for additional information regarding this product's certification.

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under ULC's Follow-Up Service. Only those products bearing the ULC Mark should be considered to be Listed and covered under ULC's Follow-Up Service. Always look for the Mark on the product.

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Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

December 22, 1999

Certified Mail Return Receipt Requested: Z 333 615 964

Mr. Kurt Kaul
Emco Wheaton Retail
2300 Industrial Park Drive
Wilson, North Carolina 27893

RE: File No. EQ-414, DEP Approval of the Guardian A1100
Overfill Prevention Valve pursuant to Rule 62-761.850,
Florida Administrative Code (F.A.C.)

Dear Mr. Kaul:

The Bureau of Petroleum Storage Systems has concluded its review of the Equipment Approval requests dated December 6, and 7, 1999, that were submitted for the above referenced equipment.

Based on the information provided by Emco Wheaton Retail, the Department finds that the applicant's Guardian A1100 Overfill Prevention Valve will provide environmental protection substantially equivalent to that provided by compliance with the requirements established in Rule 62-761.500(2)(d)2., F.A.C.

Pursuant to Rule 62-761.850, F.A.C., the request for the use of the above referenced product is Approved for overfill protection for underground tanks in the State of Florida.

Please be advised that the above rules are subject to change. If the above rule standards are modified in the future, this order may be modified or rescinded for future upgrades and installations. Additionally, if the product(s) shows a consistent pattern of failure(s), and therefore does not provide substantially equivalent environmental protection, the Department may rescind this order.

The Department's Order shall become final unless a timely petition for an administrative hearing is filed under sections 120.569 and 120.57, Florida Statutes (F.S.), within 21 days of receipt of this Order. Persons who have filed such a petition may seek to mediate the dispute, and

choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing and pursuing mediation are set forth below.

Persons affected by this Order have the following options:

If you choose to accept the above decision by the Department about equipment approval, you do not have to do anything. This Order is final and effective as of the date on the top of the first page of this Order.

If you choose to challenge the decision, you may do one of the following:

1. file a petition for administrative hearing with the Department's Office of General Counsel within 21 days of receipt of this Order; or
2. file a request for an extension of time to file a petition for hearing with the Department's Office of General Counsel within 21 days of receipt of this Order; such a request should be made if you wish to meet with the Department in an attempt to resolve any disputes without first filing a petition for hearing.

In addition to requesting an administrative hearing, any petitioner may elect to pursue mediation under section 120.573, F.S. within 10 days after the deadline for filing a petition.

How to Request an Extension of Time to File a Petition for Hearing

For good cause shown, pursuant to Rule 62-110.106(4), F.A.C., the Department may grant a request for an extension of time to file a petition for hearing. Such a request must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from the applicant, shall mail a copy of the request to the applicant at the time of filing. Timely filing a request for an extension of time tolls the time period within which a petition for administrative hearing must be made.

How to File a Petition for Administrative Hearing

A person whose substantial interests are affected by this Order may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57, F.S. The

petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from the applicant, shall mail a copy of the petition to the applicant applicant, at the time of filing. Failure to file a petition within this time period shall waive the right of anyone who may request an administrative hearing under sections 120.569 and 120.57, F.S.

Pursuant to Subsection 120.54(5)(b)4., F.S., and rule 28-106.201, F.A.C., a petition for administrative hearing shall contain the following information:

- a) The name, address, and telephone number of each petitioner, the name, address, and telephone number of the petitioner's representative;
- b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- c) An explanation of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;
- d) A statement of the material facts disputed by the petitioner, or a statement that there are no disputed facts;
- e) A statement of the ultimate facts alleged, including a statement of the specific facts the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- f) A statement of the specific rules or statutes the petitioner contends requires reversal or modification of the Department's action or proposed action; and
- g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Department's action or proposed action.

How to Pursue Mediation

In addition to requesting an administrative hearing, any petitioner may elect to pursue mediation. The election may be accomplished by filing with the Department a mediation agreement with all parties to the proceeding (i.e., the applicant, the Department, and any person who has filed a timely and sufficient petition for hearing). The agreement must contain all the information required by rule 28-106.404, F.A.C. The agreement must be received by the

clerk in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000 within 10 days after the deadline for filing a petition, as set forth above. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement.

Pursuant to rule 28-106.404, F.A.C., an agreement to mediate must include the following:

- (i) The name, address, and telephone number of the persons who may attend the mediation;
- (ii) The name, address, and telephone number of the mediator agreed to by the parties;
- (iii) How the costs and fees associated with the mediation will be allocated (the Bureau of Petroleum Storage Systems will not pay any of the costs of mediation);
- (iv) The agreement of the parties regarding the confidentiality of discussions and documents introduced during mediation to the extent authorized by law;
- (v) The date, time, and place of the first mediation session;
- (vi) The name of the party's representative who shall have authority to settle or recommend settlement; and
- (vii) The signature of the parties.

As provided in section 120.573, F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57, F.S., for holding an administrative hearing and issuing a final order. Unless otherwise agreed to by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons seeking to protect their substantial interests that would be affected by such a modified final decision must file their petitions within 21 days of receipt of this notice, or they shall be deemed to have waived their right to a proceeding under sections 120.569 and 120.57, F.S. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57, F.S., are resumed.

This Order is final and effective as of the date on the top of the first page of this Order. Timely filing

Mr. Kurt Kaul
December 22, 1999
Page 5 of 5

petition for administrative hearing postpones the date this Order takes effect until the Department issues either a final order pursuant to an administrative hearing or mediation settlement, or an order responding to supplemental information provided pursuant to meetings with the Department.

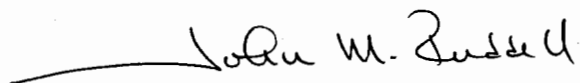
Judicial Review

Any party to this Order has the right to seek judicial review of it under section 120.68, F.S., by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this order is filed with the clerk of the Department (see below).

Questions

Any questions regarding the Department's review of your equipment approval should be directed to Farid Moghadam at (850) 488-3935. Questions regarding legal issues should be referred to the Department's Office of General Counsel at (850) 488-9314. Contact with any of the above does not constitute a petition for administrative hearing (or time extension) or agreement to mediate.

Sincerely,



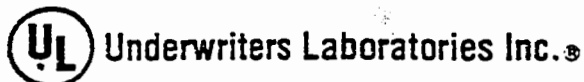
John M. Ruddell, Director
Division of Waste Management

JMR/fm

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52
Florida Statutes, with the designated
Department Clerk, receipt of which is
hereby acknowledged.

Joanie Diestelhorst 12-22-99
Clerk Date



333 Pfingsten Road
Northbrook, Illinois 60062-2096
United States Country Code (1)
(847) 272-8800
FAX No. (847) 272-8129
<http://www.ul.com>

NOTICE OF AUTHORIZATION TO APPLY THE UL MARK



March 31, 1998

Emco Wheaton Retail Corp.
Mr. Mac Harmon
2300 Industrial Park Drive
Wilson, NC. 27893

Our Reference: MH6518

Product: Model A0060 Double Poppet Shear Valve

Gentlemen:

In accordance with your letter of we have established Project No. 98NK10281 with an Engineering cost limit of \$1,037.00 for the investigation of the subject products. We have completed our engineering investigation under the above project number and find the product complies with the applicable requirements.

This letter temporarily supplements the UL Follow-Up Services Inspection Procedure and serves as authorization to apply the UL Marking to the above product which is constructed as indicated on the attached material.

This authorization is effective for 90 days only from the date of this Notice. Records covering the product are now being prepared and will be sent to you in the near future. Products produced which bear the UL Mark shall be identical to those which were evaluated by UL and found to comply with UL's requirements. If changes in construction are discovered, authorization to use the UL Mark may be withdrawn and products that bear the UL Mark may have to be revised (in the field or at the manufacturer's facility) to bring them into compliance with UL's requirements. If you have any questions or comments concerning the foregoing, please feel free to contact us.

Sincerely,

MICHAEL KETTERLING (ex. 41728)
Engineer
Engineering Services, 416A

Reviewed by:

R. A. ZEMAN (ex. 42258)
Staff Engineer
Engineering Services, 416A



333 Pfingsten Road
Northbrook, Illinois 60062-2096
(847) 272-8800
FAX No. (847) 272-8120
MCI Mail No. 254-3343
Telex No. 6502543343

F A X T R A N S M I S S I O N

June 9, 1997

Emco Wheaton, Inc.
Mr. Matt Tosi
Fax No. (919) 243-4759



Our Reference: MH6518

Subject: Model A0061 Emergency Shutoff Valve

Dear Mr. Tosi:

In accordance with our recent telephone conversation, this letter will confirm that the subject valve is currently Listed with female and male connections in both the single and double poppet configurations. You are authorized to use the UL Listing Mark on these products constructed as described in the Procedure in accordance with the Follow-Up Service Agreements.

If you should have any questions, please feel free to contact us.

Sincerely,


R. A. ZEMAN (Ext. 42258)
Senior Project Engineer
Engineering Services, 416A

Reviewed by:


MARSHALL ISSEN
Engineering Group Leader
Engineering Services, 416A



Underwriters Laboratories Inc.*

333 Pfingsten Road
Northbrook, Illinois 60062-2096
(847) 272-8800
FAX No. (847) 272-8129
MCI Mail No. 254-3343
Telex No. 6502543343

NOTICE OF AUTHORIZATION TO APPLY THE UL MARK

March 7, 1997



Emco Wheaton, Inc.
Mr. Matt Tosi
2300 Industrial Park Drive
Wilson NC 27893

Our Reference: MH6518, 97NK7109

Product: Model A61 Emergency Shutoff Valve with Double Poppet

Dear Mr. Tosi:

We have completed our engineering investigation under the above project number and find the product complies with the applicable requirements.

This letter temporarily supplements the UL Follow-Up Services Inspection Procedure and serves as authorization to apply the UL Listing Mark to the above product which is constructed according to the attached addendum.

This authorization is effective for 90 days only from the date of this Notice. Records covering the product are now being prepared and will be sent to you in the near future.

Products produced which bear the UL Mark shall be identical to those which were evaluated by UL and found to comply with UL's requirements. If changes in construction are discovered, authorization to use the UL Mark may have to be revised (in the field or at the manufacturer's facility) to bring them into compliance with UL's requirements.

Sincerely,

R. A. ZEMAN (Ext. 42258)
Senior Project Engineer
Engineering Services, 416A

Reviewed by:

MARSHALL ISSEN
Engineering Group Leader
Engineering Services, 416A

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AIR RESOURCES BOARD

1102 Q STREET
P.O. BOX 2815
SACRAMENTO, CA 95812



August 19, 1991

David J. Parrish
Engineering Manager
Emco Wheaton, Inc.
4001 Weston Parkway
Cary, NC 27513

#91-16

Dear Mr. Parrish:

Certification of Emco Wheaton A1100 Guardian Overfill Prevention

You requested certification of the Emco Wheaton A1100 overfill prevention. This product was approved for use in two point installations on January 23, 1991. The A1100 overfill prevention system consists of a tube which is installed in the drop tube. For coaxial installations, an adaptor kit is available. Approval of the system for use with coaxial systems was withheld pending leak testing of the poppeted coaxial system.

The leak test consists of pressurizing the ullage space in a storage tank with dry Nitrogen gas to a pressure of ten inches and observing the rate of decay. Coaxial installations should be tested with the fill cap removed to verify the integrity of the vapor poppet. Tests conducted on a coaxial A1100 in February revealed vapor leak sources in both the overfill prevention tube and in the coaxial vapor gasket assembly. Several modifications to the design were made, and the product was retested. The results indicate that the improved design is virtually leak free. The improvements will be incorporated into all A1100 tubes.

As required by the Air Resources Board certification and test procedures, you requested the approval of the Division of Occupational Health and Safety, the Office of the State Fire Marshal and the Department of Food and Agriculture, Division of Measurement Standards. The necessary approvals have been obtained from these agencies.

I find that the use of the A1100 system will not adversely affect vapor recovery systems on which it may be installed. Therefore, the Emco Wheaton A1100 Guardian overfill prevention system is certified for use with Phase I gasoline vapor recovery systems. If you have any questions, please call Laura McKinney, Associate Air Pollution Specialist, at (916) 327-1525.

Sincerely,

James J. Morgester, Chief
Compliance Division

cc: All APCDs and AQMDs
Vapor Recovery Technical Committee Members
CAP Gasoline Marketing and Distribution Manual

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7 Crouse Road, Scarborough, Ontario, Canada M1R 3A9

Telephone: (416) 757-5250 ext. 61233

Fax: (416) 757-1781 - Engineering

(416) 757-8915 - Standards and Publications/Accounting

FAX TRANSMISSION

1

FROM: Gordana NikolicNumber of page(s): _____
(Including the cover page)Department/Ext.: Engineering / 61233Date 16/ 04 / 1998 (DD/MM/YY)**FAX TO:** Mr. Charles S. PearsonFax: (919) 243-4759Company: Emco Wheaton, Industrial Retail Corp.**SUBJECT:** Overfill Protection Device, Model A1100ULC File: CMH1602Appl.: 27675

Further to your request of March 27, 1998 and investigation of the above overfill protection device, we confirm the following:

The investigation of the subject product initiated by File CMH1602, Application 27675 has been completed. The object of the investigation was to determine compliance of this product with requirements of Underwriters' Laboratories of Canada as described in ULC/ORD-C58.15, Overfill Protection Devices for Flammable Liquid Storage Tanks, particularly endurance test.

As you are aware the examination and testing of the subject overfill protection device has been completed with acceptable results. The above product was capable of withstanding 1500 cycles of normal operation, therefore, in compliance with the current endurance test requirements of Underwriters' Laboratories of Canada.

Based on the satisfactory status of the test results and at your request, we are proceeding to initiate a revision of the Emco Wheaton Files. Copies of our revised Listing Text and Follow-Up Service Procedure will be sent to you as soon as they are available for release.

Should you have any additional questions on the forgoing, please do not hesitate to communicate with us.



Air Resources Board

John D. Dunlap, III, Chairman
2020 L Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



May 4, 1998

Scott Wilson
Emco Wheaton
374 Upland Drive
Tukwila, WA 98188

Dear Mr. Wilson:

Clarification of Approval Letter 91-16 for A1100

This is in response to your April 10 letter in which you requested California Air Resources Board (CARB) clarification regarding the A1100 Guardian Overfill Prevention certified in Approval 91-16.

As stated in Approval Letter 91-16, the coaxial version of the A1100 is certified.

If you have any questions or need assistance, please contact Joe Guerrero at (916) 324-7343 or Laura McKinney at (916) 327-1525.

Sincerely,

James J. Morgester, Chief
Compliance Division

California Environmental Protection Agency

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INCORPORATED 1920

UNDERWRITERS' LABORATORIES OF CANADA

In Reply,
Please Refer to

CMH1602
25430/25433

June 27, 1997

Mr. Charles S. Pearson
Vice President
Emco Wheaton Retail Corp.
2300 Industrial Park Drive
Wilson, NC 27893
U.S.A.

Subject: Overfill Protection Device for Flammable Liquid Storage Tanks

Dear Mr. Pearson:

Our investigations of the subject product incorporating the changes described in your letters dated March 27, 1997 have been completed with acceptable results.

A copy of the Listing Report will follow shortly.

Our records have been revised and we are enclosing material for inclusion in your copy of the following Procedure:

<u>File No.</u>	<u>Vol.</u>	<u>Page No.</u>	<u>Fig. No.</u>	<u>Date</u>
CMH1602	I	3, 10, 11 & 12		June 25, 1997
CMH1602	I		15, 32, 34 & 61	June 13, 1997

Please review this material and advise us promptly of any errors or omissions.

If we may be of further assistance, please do not hesitate to communicate with us.

Yours very truly,

B. Schueler, CET
Engineering Assistant
Appliances and Equipment

BS/hf
Encls.

Integral Marker Assurance Service Procedure - Underwriters' Laboratories of Canada

File No. CMH1602
Volume 1

- 3 -

Procedure Issued July 8, 1996
This page dated June 25, 1997PRODUCT COVERED:

Model A1100 Guardian, Type B overfill protection device for use with petroleum products including fuel blends with a maximum content of 15% MTBE. Maximum flow 500 L/min, maximum pressure 45 kPa.

COMPLIANCE

The product described herein is judged to be in compliance with the current requirements of Underwriters' Laboratories of Canada for this class of equipment, as included under ULC/ORD-C58.15-1992 Overfill Protection Devices for Flammable Liquid Storage Tanks.

GENERAL CHARACTER AND USE

This device is designed to be installed in the fill pipe or riser of an underground petroleum storage tank.

It is intended to prevent overfilling of the underground tank to the point of leakage to the environment, during the filling process.

When the liquid level rises to 90% of tank capacity as established by the installer the valve mechanism is released and at 95% of the tank capacity closes automatically with the flow. The hose kick which occurs as a result of the valve closure signals the operator that the tank is full and to close the delivery valve.

The overfill device has "drain bleed valve", a by pass valve that permits a reduced flow rate of approximately 19 L/min, allowing the delivery hose to drain.

Should the tank level reach 98% capacity, the bypass valve closes preventing additional liquid from entering the tank until the level drops below the reset point.

This product is intended to be installed in accordance with the applicable provisions of the National Fire Code of Canada and the Environmental Code of Practice for Underground Storage Tank Systems Containing Petroleum Products.

This Procedure contains information for the guidance of the manufacturer of the product described therein and of Representatives and Inspectors of Underwriters' Laboratories of Canada, and is not to be used for any other purpose. It is loaned with the understanding that it is not to be copied, either wholly or in part, and will be returned to Underwriters' Laboratories of Canada, on request.

Reviewed by GN/nd
PROC 2504

This is a revised page, and
replaces page 3 dated July 8, 1996
Changes indicated by *

Underwriters' Laboratories of Canada



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UNDERWRITERS' LABORATORIES OF CANADA

General Offices and Testing Station 7 CROUSE ROAD, SCARBOROUGH, ONTARIO, CANADA M1R 3A9

Telephone (416) 757-3611 Fax (416) 757-9540

In Reply,
Please Refer to

File: CMH1602 -

Issued: October 13, 1995

Volume I

INTEGRAL MARKER ASSURANCE SERVICE PROCEDURE

for

OVERFILL PROTECTION DEVICE FOR FLAMMABLE LIQUID STORAGE TANKS

LISTEE: Emco Wheaton Inc.
3800 Gateway Centre Blvd., Ste.301
Morrisville, NC U.S.A. 27560

APPLICANT: Same as Listee

MANUFACTURER: Emco Wheaton Inc.
2300 Industrial Park Drive
Wilson, NC U.S.A. 27894

INSPECTIONS AT: Same as Manufacturer

This Procedure authorizes the use of the ULC Integral Marker, consisting of the letters "ULC" in a circle, on products when constructed, tested and found to be in compliance with requirements of this Procedure and in accordance with the terms of the Listing Agreement.

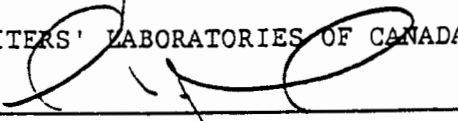
It is the responsibility of the Listee to make sure that only products meeting the aforementioned requirements bear the Integral Marker of Underwriters' Laboratories of Canada. Proposed changes or additions are required to be submitted to the Engineering Department of Underwriters' Laboratories of Canada for review. If the changes or additions are judged to be acceptable, the Procedure will be revised to authorize the use of the ULC Integral Marker on such product.

The Procedure contains confidential information for the guidance of the Listee and Manufacturer and the Representatives of Underwriters' Laboratories of Canada and is not to be used for any other purpose. It is loaned with the understanding that it is not to be copied either wholly or in part and that it will be returned to Underwriters' Laboratories of Canada upon request.

This PROCEDURE, together with any subsequent revisions, is the property of UNDERWRITERS' LABORATORIES OF CANADA and is not transferable.


G. Nikolic, P.Eng
Project Engineer

UNDERWRITERS' LABORATORIES OF CANADA


S. J. Pople, P.Eng
Managing Engineer



California
Environmental
Protection
Agency



Air Resources Board

P.O. Box 2815
2020 L Street
Sacramento, CA
95812-2815



Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

September 10, 1996

Skip Orr
District Manager
Emco Wheaton, Inc.
District Office
7178 Canelo Hills Dr.
Citrus Heights, CA 95610

Dear Mr. Orr:

96-27

Emco Wheaton A1100-57 Phase I Drop Tube Approval

Thank you for your letter dated August 29, 1996, in which you requested a variant to California Air Resources Board (CARB) Approval Letter #95-9-A. Approval Letter #95-9-A granted approval of Emco Wheaton's A1100-55 and A1100-56 drop tubes. Both drop tubes are identical except for the overall length: the A1100-55 is 13 feet in length and the A1100-56 is 15 feet in length. Your proposed variant is the A1100-57 drop tube, which identical to the A1100-55 and A1100-56 except that it is 17 feet in overall length.

The A1100 Series drop tubes are intended for use with two point Phase I vapor recovery systems. The units shall be installed in conformity with the manufacturer's instructions and all applicable codes.

Based upon review of the submitted drawings and prior approval of similar drop tubes, I find that the Emco Wheaton A1100-57 Phase I drop tube when installed with the manufacturer's instructions will not adversely affect the performance of vapor recovery systems on which it is installed. Therefore, the Emco Wheaton Incorporated A1100-57 two point overfill prevention type drop tube is certified for use with all CARB certified two point Phase I vapor recovery systems.

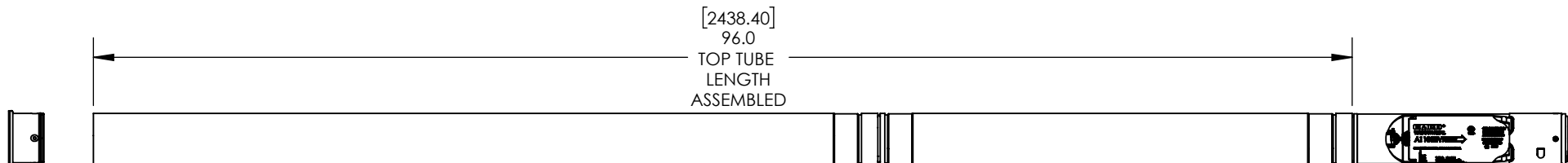
If you have any questions or wish to discuss this, please call Paul Thalken at (916) 445-0383.

Sincerely,

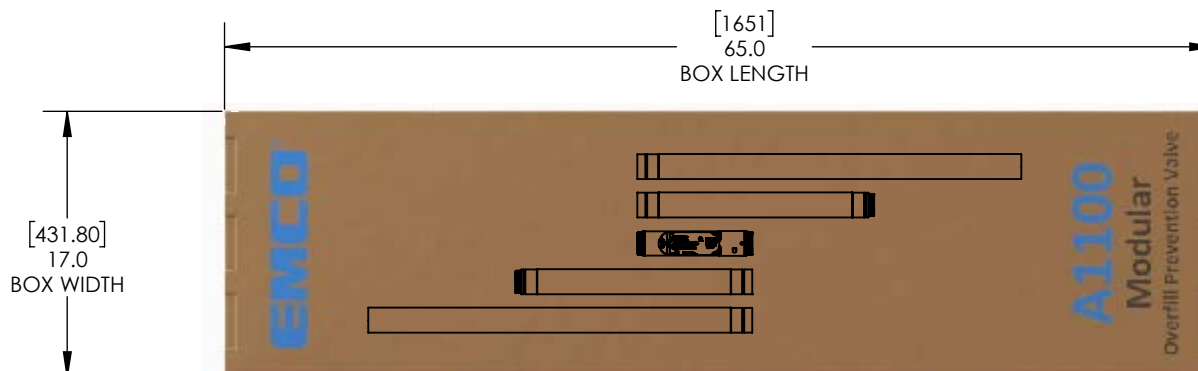
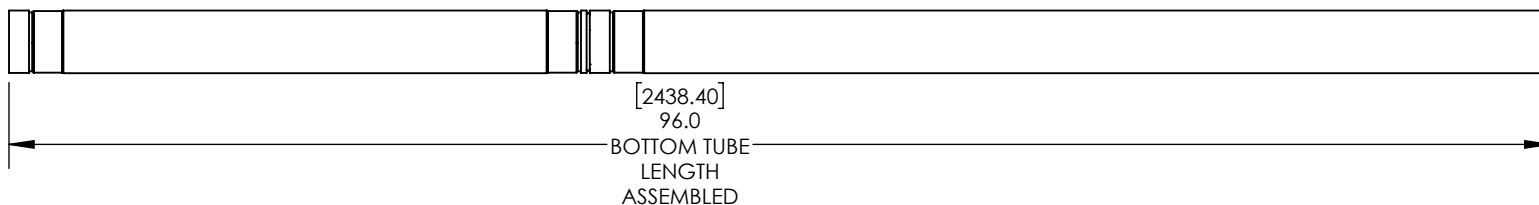
James J. Morgester, Chief
Compliance Division

cc: Mr. Jim Johnston, Chairman,
CAPCOA Vapor Recovery Committee

Mr. Gary Hunter, Manager,
CARB Compliance Assistance Section



TOP COLLAR
KIT



EMCO WHEATON RETAIL CORP.
2300 INDUSTRIAL PARK DRIVE
WILSON, N.C. 27893
emcoretail.com

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A	MARKETING	03/27/2023	RCW
REV.	DESCRIPTION	DATE	BY

PART DESCRIPTION

A1100EVR-056M MARKETING

SIZE	DRAWING NUMBER.	PAGE	REV.
A	A1100EVR-056M_MK	1/1	A