U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

FEB 25 2019

Robert Ten Eyck
Ten-E Packaging Services
1666 County Road 74
Newport, MN 55055

Reference No. 18-0064

Dear Mr. Ten Eyck:

This letter is in response to your March 21, 2018, email and subsequent conversations with a member of my staff requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to closure requirements for shipments of receptacles being transported by aircraft. Specifically, you ask if your client's bottle design as described below meets the requirements of § 173.27(d) for secondary closures.

You provide technical drawings of your client's bottle design and further describe it as having a closure with an interlocking flange design that once connected to the bottle cannot be removed without destroying the closure or the bottle neck itself. You also state that the closure incorporates an "anti-back off" feature similar to a child lock.

After reviewing the description and technical drawings you provided, it is the opinion of this Office that the closure meets the closure requirements of § 173.27(d).

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

T. Glenn Foster
Chief, Regulatory Review and Reinvention
Standards and Rulemaking Division

Wolcott
Packaging General
18-0064

January, Ikeya CTR (PHMSA)

From: Kelley, Shane (PHMSA)
Sent: Wednesday, April 18, 2018 5:54 PM
To: January, Ikeya CTR (PHMSA)
Subject: FW: Letter of Clarification
Attachments: Non-Removable Closure2.docx

Please assign for response and let me know who the specialist will be. Thanks!

From: Robert Teneyck <Robert.Teneyck@ten-e.com>
Sent: Wednesday, March 21, 2018 1:17:42 PM
To: Kelley, Shane (PHMSA)
Subject: Letter of Clarification

Hi Shane,
Please see attached request for a written interpretation concerning the use of secondary closure seals. Let me know if you need any further information to handle this packaging matter.
Regards,
Bob T.

TEN-E
Setting the Standard

Robert Ten Eyck
robert.teneyck@ten-e.com
Office: 651-459-0671
Fax: 651-459-1430

TEN-E Packaging Services, Inc.
1666 County Road 74
Newport, MN 55055
www.ten-e.com

Wolcott, Alexander (PHMSA)

From: Robert Teneyck <Robert.Teneyck@ten-e.com>
Sent: Tuesday, October 02, 2018 11:07 AM
To: Wolcott, Alexander (PHMSA)
Subject: Secondary closure seals

Confirming our brief discussion today, our letter dated March 21, 2018 is not requesting an approval for the closure in question but rather an interpretation as to whether or not it meets DOT and ICAO requirements for secondary seals.
Regards,
Robert Ten Eyck

TEN-E
Setting the Standard

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robert.teneyck@ten-e.com
Office: 651-459-0671
Fax: 651-459-1430

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TEN-E

TEN-E Packaging Services, Inc.

March 21, 2018

Shane Kelley
U.S. DEPARTMENT OF TRANSPORTATION
Pipeline and Hazardous Materials Safety Administration
Standards Development, PHH-11
1200 New Jersey Avenue S. E.
Washington, D.C. 20590

Ref.: Secondary closure seals

Dear Shane:

Both Title 49 CFR and the ICAO Technical Instrucitons call for secondary seals on "friction" closures used with inner receptacles containing liquids that are shipped by air (reference Title 49 CFR Sections 173.24(f)(ii) and 173.27(d) and ICAO Technical Instructions Part 4; Chapter 1; Paragraph 1.1.4.1). A client of ours has developed a unique closure system that secures the closure to the bottle neck by use of an interlocking flange design. Once seated the closure cannot be removed without destroying it and the bottle's neck. Product is ultimately dispensed through a septum located in the center opening of the closure.

Since the closure will not loosen under transportation conditions of temperature or vibration there is no reason to apply a secondary seal or to require the use of a leakproof liner. As such we believe the unique closure design should be excepted from these requirements and would appreciate having the agency either confirm our viewpoint or tell us why the design falls subject to these additional packaging requirements.

Please let me know if you require any additional information to handle this request for clarification.

Robert J. Ten Eyck
Director, Technical Services
TEN-E Packaging Services, Inc.

TEN-E Packaging Services, Inc.

1666 County Road 74
Newport, MN 55055
Phone: 651-459-0671
Fax: 651-459-1430
Email: info@ten-e.com
Web: www.ten-e.com
United States – Minnesota

326 North Corona Avenue
Ontario, CA 91764
Phone: 909-937-1260
Fax: 909-937-1262
Email: info@ten-e.com
Web: www.ten-e.com
United States – California

2101 Shore Street
High Point, NC 27263
Phone: 336-803-4878
Fax: 336-804-5074
Email: info@ten-e.com
Web: www.ten-e.com
United States – North Carolina

Wolcott, Alexander (PHMSA)

From: Robert Teneyck <Robert.Teneyck@ten-e.com>
Sent: Thursday, May 10, 2018 4:03 PM
To: Wolcott, Alexander (PHMSA)
Subject: RE: Letter of Interpretation

Hi Alex,
As a further thought the closure design could certainly be considered to incorporate an anti-back off feature and could also be considered to be a child-resistant design. I believe the agency has viewed such designs as meeting the secondary closure requirement.
Regards,
Bob T.

From: Wolcott, Alexander (PHMSA) [mailto:alexander.wolcott@dot.gov]
Sent: Thursday, May 10, 2018 10:35 AM
To: Robert Teneyck
Subject: Letter of Interpretation

Good Morning Bob,

I have been going over the drawing that you sent over with some others here and we just had one question for you that we couldn't quite tell from the drawings. We were wondering of the bottle is sealed with something over the top of it before the cap is placed or is the cap the only method used to seal the bottle. Let me know.

Thanks,

Alexander Wolcott | *Transportation Specialist*
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Ave., SE
Washington, DC 20590
Office: (202) 366-4003
Room: E22-231
Email: Alexander.Wolcott@dot.gov

Wolcott, Alexander (PHMSA)

From: Robert Teneyck <Robert.Teneyck@ten-e.com>
Sent: Thursday, May 10, 2018 12:17 PM
To: Wolcott, Alexander (PHMSA)
Subject: RE: Letter of Interpretation

The cap has a flowed-in liner that engages the land area of the bottle to form a liquid tight seal. There is an additional friction-fit cap that sits over the septum area of the cap that forms a secondary seal to the septum itself but not the land area. Hopefully I am not confusing this situation for you.
Regards,
Bob T.

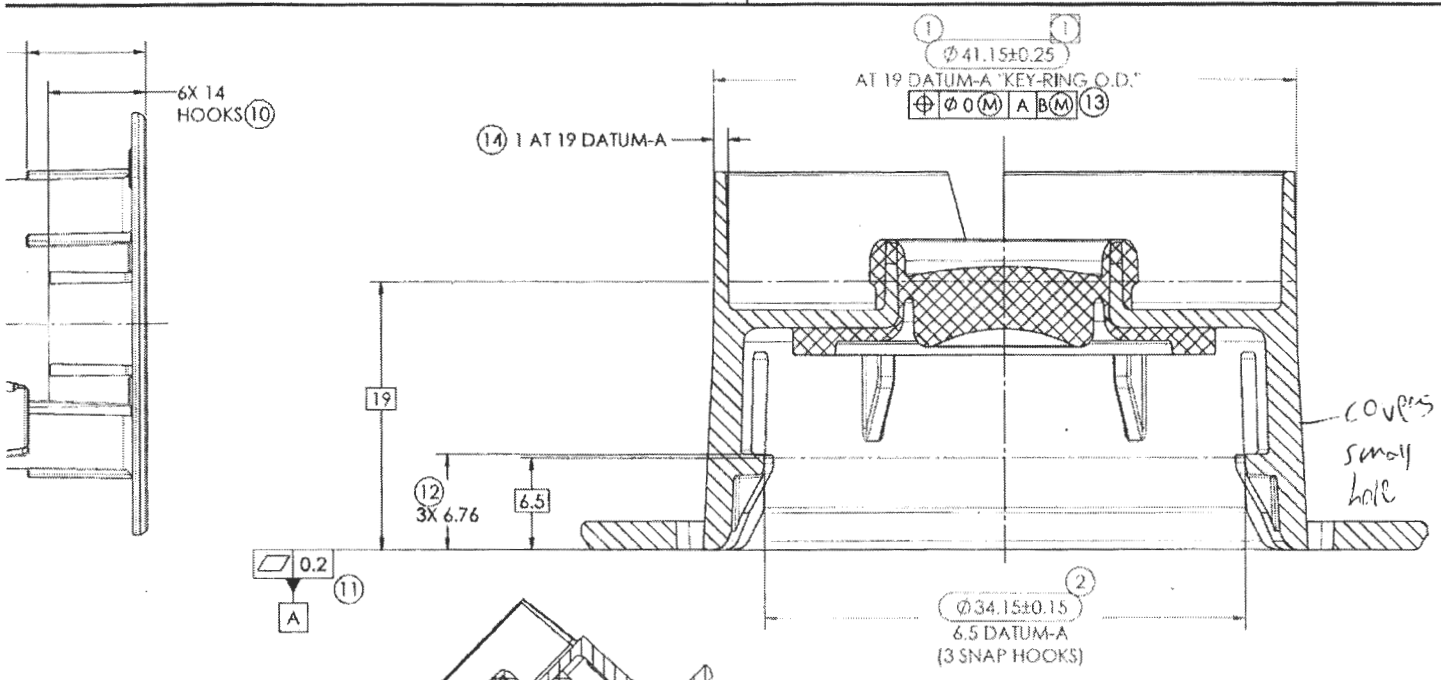
From: Wolcott, Alexander (PHMSA) [mailto:alexander.wolcott@dot.gov]
Sent: Thursday, May 10, 2018 10:35 AM
To: Robert Teneyck
Subject: Letter of Interpretation

Good Morning Bob,

I have been going over the drawing that you sent over with some others here and we just had one question for you that we couldn't quite tell from the drawings. We were wondering of the bottle is sealed with something over the top of it before the cap is placed or is the cap the only method used to seal the bottle. Let me know.

Thanks,

Alexander Wolcott | *Transportation Specialist*
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Ave., SE
Washington, DC 20590
Office: (202) 366-4003
Room: E22-231
Email: Alexander.Wolcott@dot.gov



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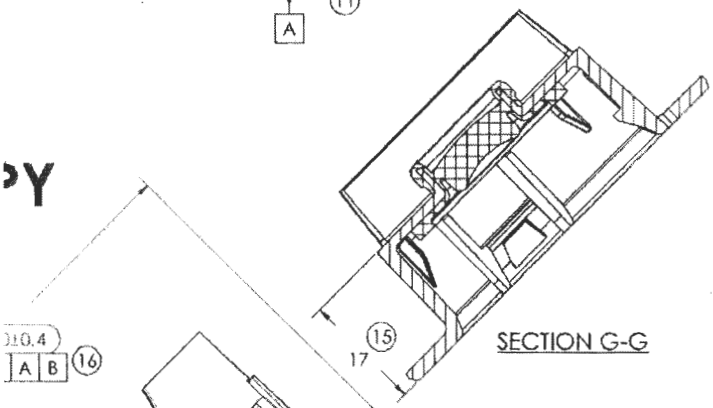

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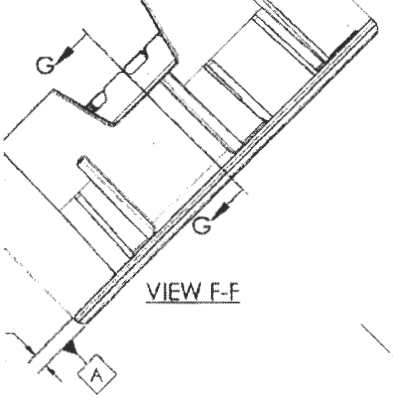
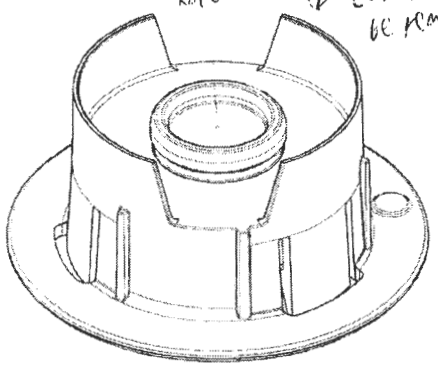
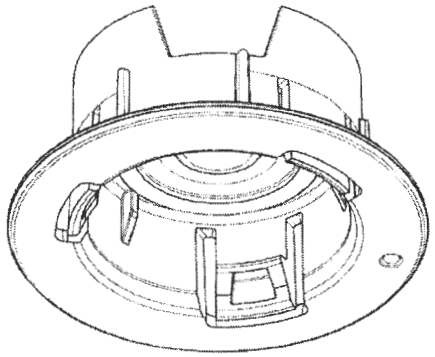
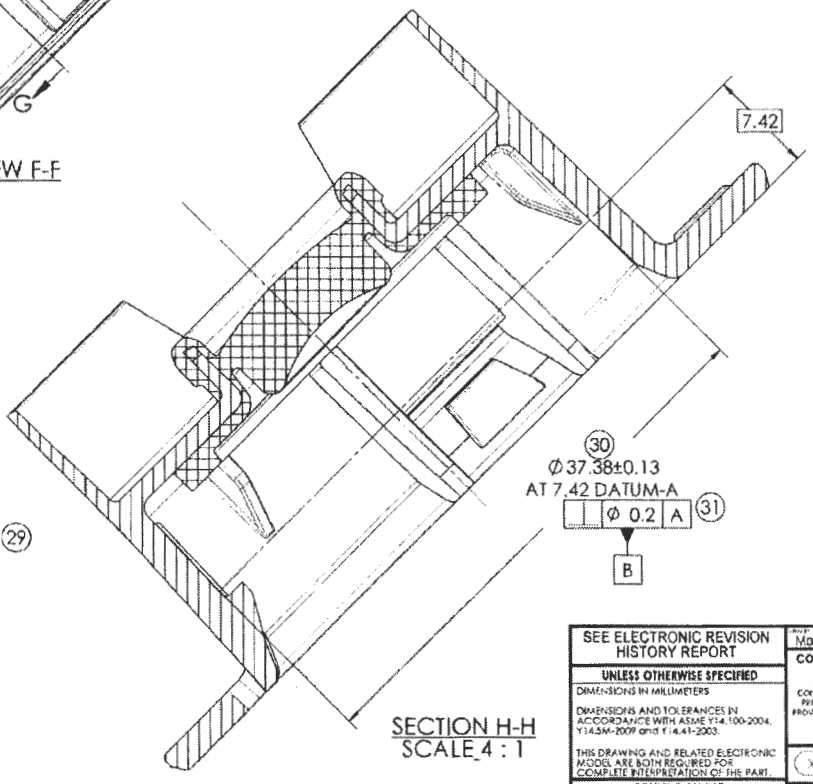


VIEW F-F

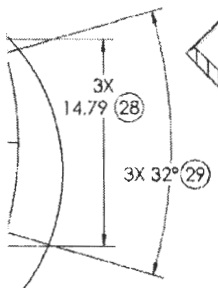


KEY-3 SHOWN





SECTION H-H
SCALE 4 : 1



AIL I
E_4 : 1

DRAFT
Reference Only

SEE ELECTRONIC REVISION HISTORY REPORT	Mak, Linda M 8/8/2018	Abbott A Promise for Life
UNLESS OTHERWISE SPECIFIED: DIMENSIONS IN MILLIMETERS. DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.100-2004, Y14.5M-2009 and Y14.41-2003. THIS DRAWING AND RELATED ELECTRONIC MODEL ARE BOTH REQUIRED FOR COMPLETE INTERPRETATION OF THE PART. DRAWING ON CAD DO NOT UPDATE MANUALLY	CONFIDENTIAL INFORMATION: CONTAINS TRADE SECRET AND/OR CONFIDENTIAL INFORMATION WHICH IS THE PROPERTY OF ABBOTT LABORATORIES. AS PROVIDED TO 21 CFR 20.4 (...) DO NOT DISCLOSE TO THE PUBLIC. (XX) = KEY DIMENSION. ODN: N/A	TITLE: SNAP-LOCK CAP WITH OVERMOLDED SEPTUM; KEY-3
		THIRD ANGLE PROJECTION · SIZE D · DWG NO. DK4057 · REV. M
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DK4057

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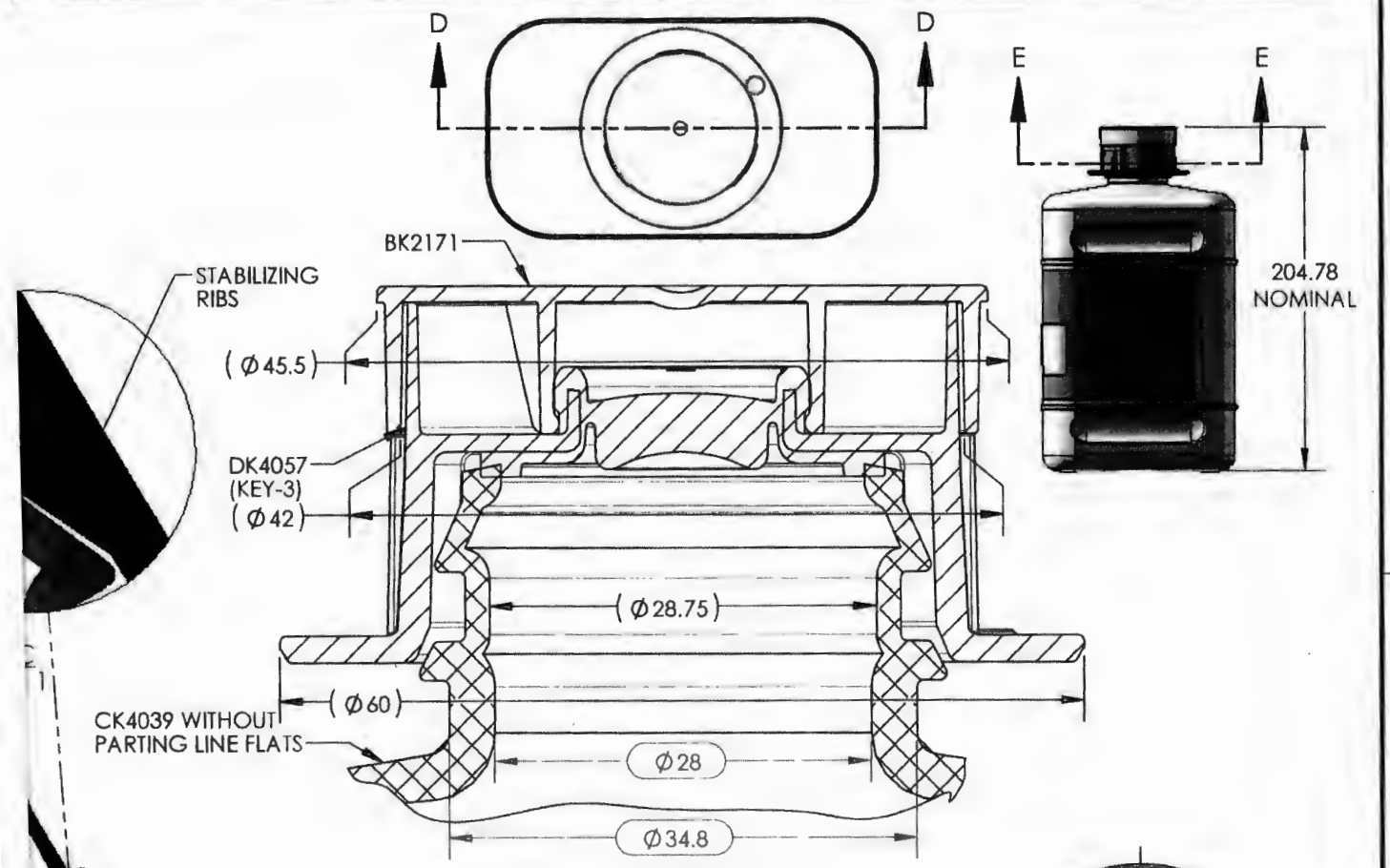

SECTION D-D
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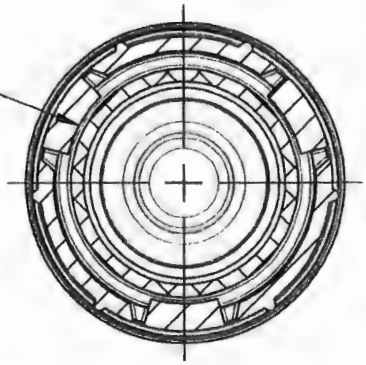

SECTION E-E
SCALE 1 : 1

TION B-B
ALE 2 : 1

CONCEPT SKETCH 02-26-18

DRAFT
Reference Only

SEE ELECTRONIC REVISION HISTORY REPORT	Drawn By: Maki, Linda M Date: 5/10/16	Abbott A Promise for Life	
UNLESS OTHERWISE SPECIFIED	**CONFIDENTIAL INFORMATION**	TITLE:	**SNAP-ON BOTTLE ASSEMBLY, 1-L & KEY-3 CAP**
MENSIONS IN MILLIMETERS	CONTAINS TRADE SECRET AND/OR CONFIDENTIAL INFORMATION WHICH IS THE PROPERTY OF ABBOTT LABORATORIES. AS PROVIDED BY 21CFR 20.61, DO NOT DISCLOSE TO THE PUBLIC.		
MENSIONS AND TOLERANCES IN CCORDANCE WITH ASME Y14.100-2004, 4.5M-2009 and Y14.41-2003.		THIRD ANGLE PROJECTION	SIZE: B DWG NO: Snap-On Btle Assy Key-3 REV: AC
S DRAWING AND RELATED ELECTRONIC ODEL ARE BOTH REQUIRED FOR OMPLETE INTERPRETATION OF THE PART.	(XX) = KEY DIMENSION		
DRAWING ON CAD DO NOT UPDATE MANUALLY	ODN: N/A	SCALE 1:2	DO NOT SCALE DRAWING SHEET 1 OF 1

Snap-On Btle Assy Key-3

LAST SAVED ON Monday, February 26, 2018 2:08:26 PM BY makilm