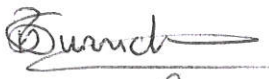
ATEX Certification Report
Shortform Report

Conductix, Inc Documentation Update

Author:		Adam Traverse Approvals Engineer
Mentor:		Richard Tunnicliffe Engineer
Checked:		Andrew Dickinson Consultant Engineer
Report number:		101418288MAN-001
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ATEX REPORT
Section 1

Report No: 101418288MAN-001

Project Number

G101418288

Report produced by

Intertek Testing & Certification Limited
Deeside Lane
Chester
CH1 6DD

Applicant

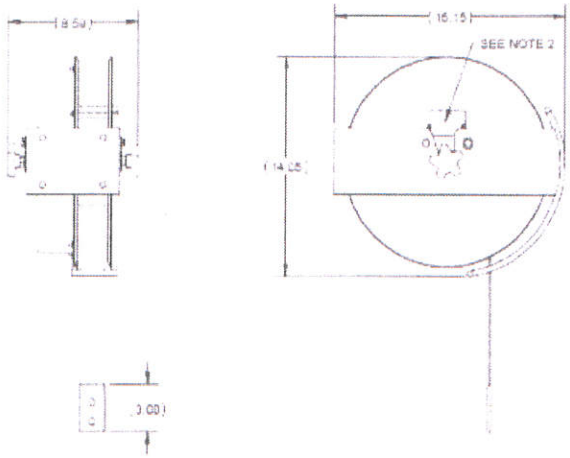
Conductix, INC
10102 F Street
Omaha
NE 68127
USA

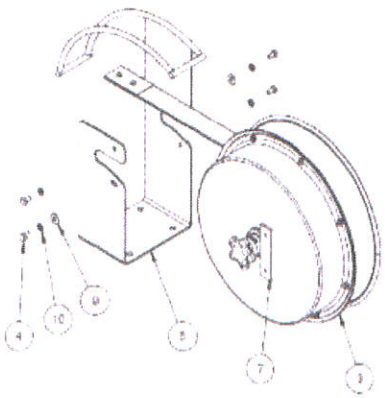
Manufacturer

As Applicant

Product description

Retractable Grounding Assembly (RGA)





Coding and certificate number

ITS08ATEX15806/2 - Coding remains unchanged

Scope of assessment

This report is to cover a variation to the Type Examination certificate listed above to include the following:
- Changes to instructions detailing the mounting procedure for the RGA
- Additional grounding and bonding requirements

ATEX REPORT

Section 2 Detailed Compliance Statement

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Detailed Compliance Statement

Changes to the latest Manual number 0008846 Installation Instructions Rev O:

- Non-technical change to the instructions detailing the mounting of the RGA to the tank wall from:
  'Scrape paint and rust from around the drilled holes to bare metal'
  to:
  'Scrape pain and rust from around the drilled holes and under the RGA mount to bare metal.

- Non-technical change to the instructions detailing the mounting of the RGA using the horizontal bracket from:
  'Scrape paint and rust from around drilled holes to bare metal'
  to:
  'Scrape paint and rust from around drilled holes and under the horizontal bracket to bare metal'.

- Addition of grounding and bonding requirements to the grounding and bonding section of the installation instructions as follows from:

Grounding and bonding
The Ground Strap is pre-drilled for connection to the tank roof. The RGA will operate properly on roofs where this Ground Strap can be installed directly below the RGA and should be 7 ¼"~ 36 ¼ " [184~921mm] from the tank wall as shown in Figure 8.

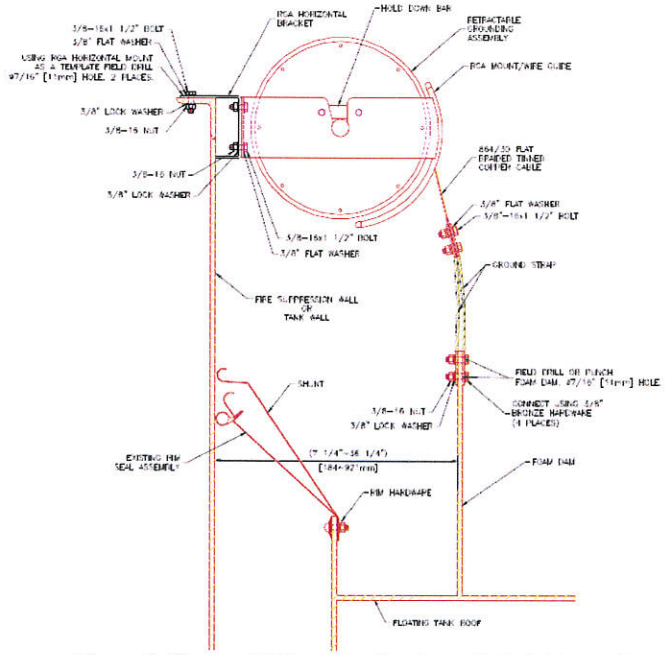

Figure 8: Horizontal Mounting Bracket with RGA Assembly

The attachment point on the floating roof foam dam **must align vertically** with the center of the braided cable wire, as shown in Figure 9. To facilitate vertical alignment, the RGA should be installed when the tank is at its fullest capacity. A 'plumb bob' or laser level can be used for best possible results (caution – a 'plumb bob' should be utilized when the wind is calm). Maintaining vertical cable alignment within +/- 12" [305mm] will minimize cable wear and maximize cable life. Once you locate the attachment point, create two (2) 7/16" [11mm] diameter holes using the Ground Strap as a template, see Figure 10. Scrape paint and rust from around the drilled holes to bare metal. Apply Lectra Shield to both sides of the holes to prevent rusting.

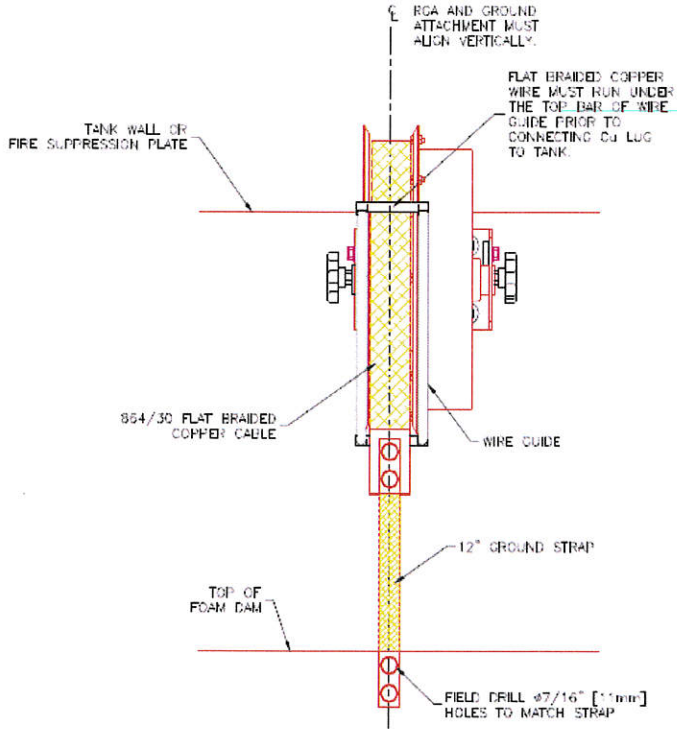

Figure 9: RGA Front View

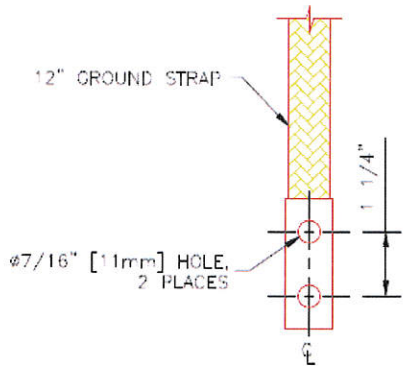

Figure 10: 12" Flexible Ground Strap End

to:

Grounding and bonding
Foam Dam Types – Two methods are commonly used to attach foam dams to floating roofs, as illustrated below. The sketch on the left shows a typical foam dam which is welded directly to the floating roof. It generally consists of an approximately ¼" [6.4mm] thick piece of steel, approximately 18 – 24" [457 – 610mm] tall, that is rolled to the approximate diameter of the tank and welded directly to the floating roof. The sketch on the right shows a typical bolted foam dam connection which generally consists of a series of 18 – 24" [457 – 610mm] wide plates which are bolted to a welded portion of the floating roof. These foam dam plates are typically mounted over the primary and secondary seal fabric, as well as any gasket material, thereby resulting in an unacceptably high impedance between the foam dam and floating roof.

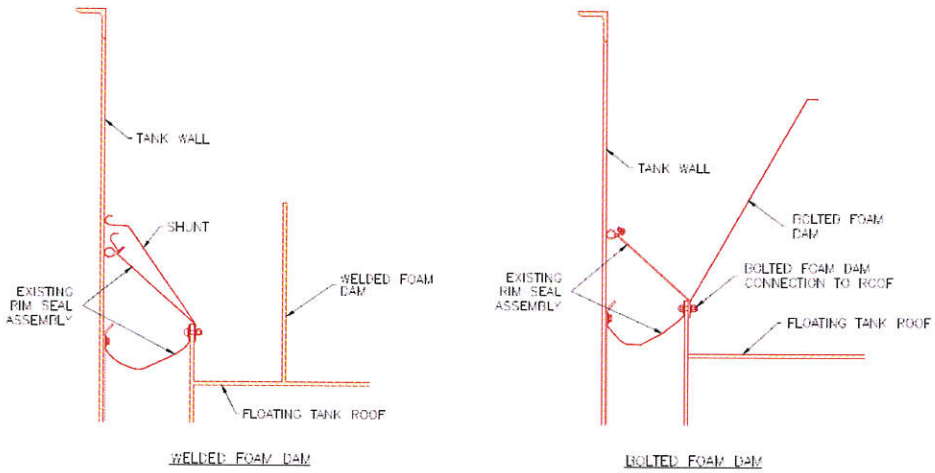

Figure 8: Foam Dam Types

RGA straps may not be attached to a bolted foam dam as seal fabric and gasket material prevent the establishment of an acceptable electrical connection between the straps and tank roof. If the tank has a bolted foam dam, additional mounting hardware will be required and the bolted foam dam strap installation procedure below must be followed. Regardless of foam dam type, the attachment point on the floating roof **must align vertically** with the center of the braided cable wire, as shown in Figure 9. To facilitate vertical alignment, the RGA should be installed when the tank is at its fullest capacity. A 'plumb bob' or laser level can be used for best possible results (caution – a 'plumb bob' should only be utilized when the wind is calm). Maintaining vertical cable alignment within +/- 12" [305mm] will minimize cable wear and maximize cable life.

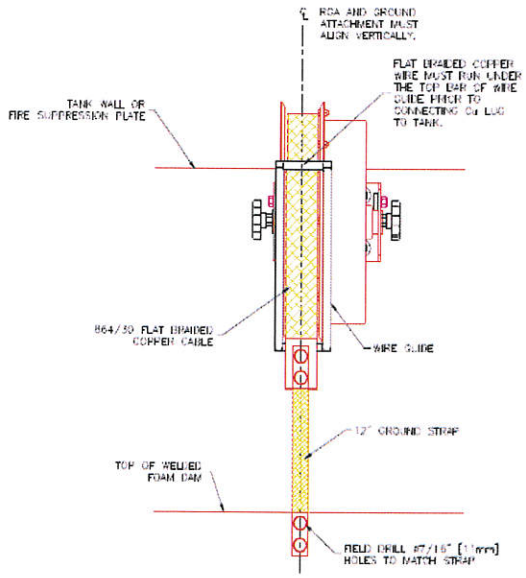

Figure 9: RGA Front View, Welded Foam Dam Shown

Welded foam dam strap installation – If the foam dam is welded to the roof, as shown in Figure 10, then the instructions below should be followed in order to attach the RGA straps to the foam dam.

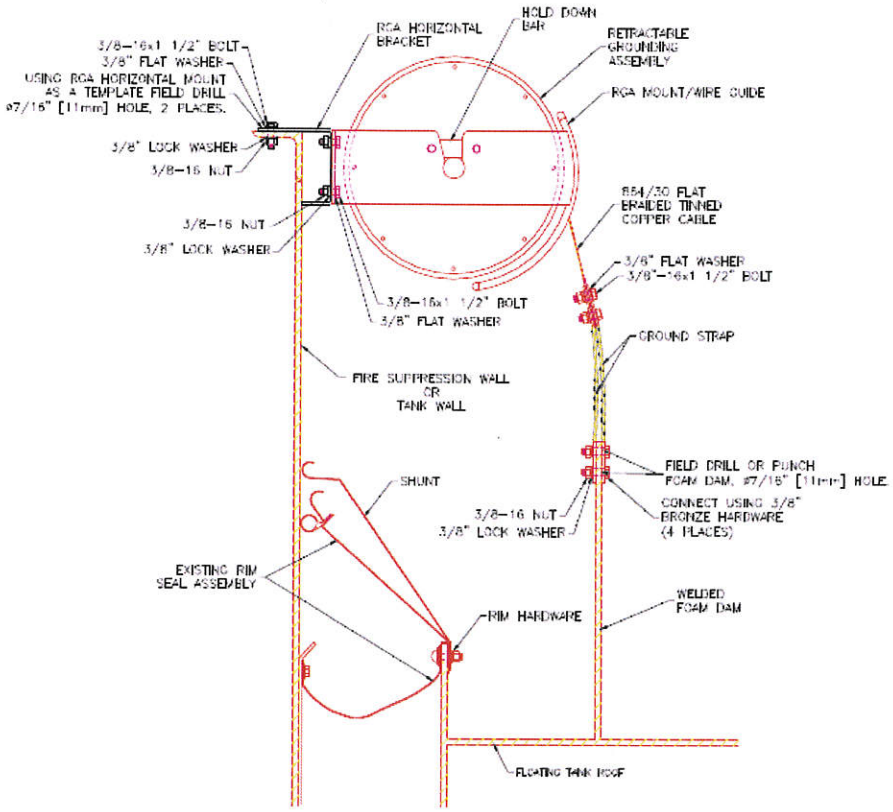

Figure 10: Welded Foam Dam RGA Installation

Locate an attachment point to the welded foam dam that is vertically aligned with the RGA, then create two (2) 7/16" [11mm] diameter holes using the Ground Strap as a template, see Figure 11. Scrape paint and rust from around the drilled holes and under the ground strap mounting surfaces to bare metal. Apply Lectra Shield to both sides of the holes and all bare metal to prevent rusting.

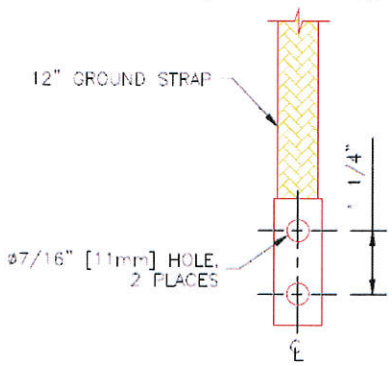

Figure 11: 12" Flexible Ground Strap End

Bolted foam dam strap installation – If the foam dam is bolted to the roof, as shown in Figure 12, then the instructions below should be followed in order to attach the RGA straps to the tank roof.

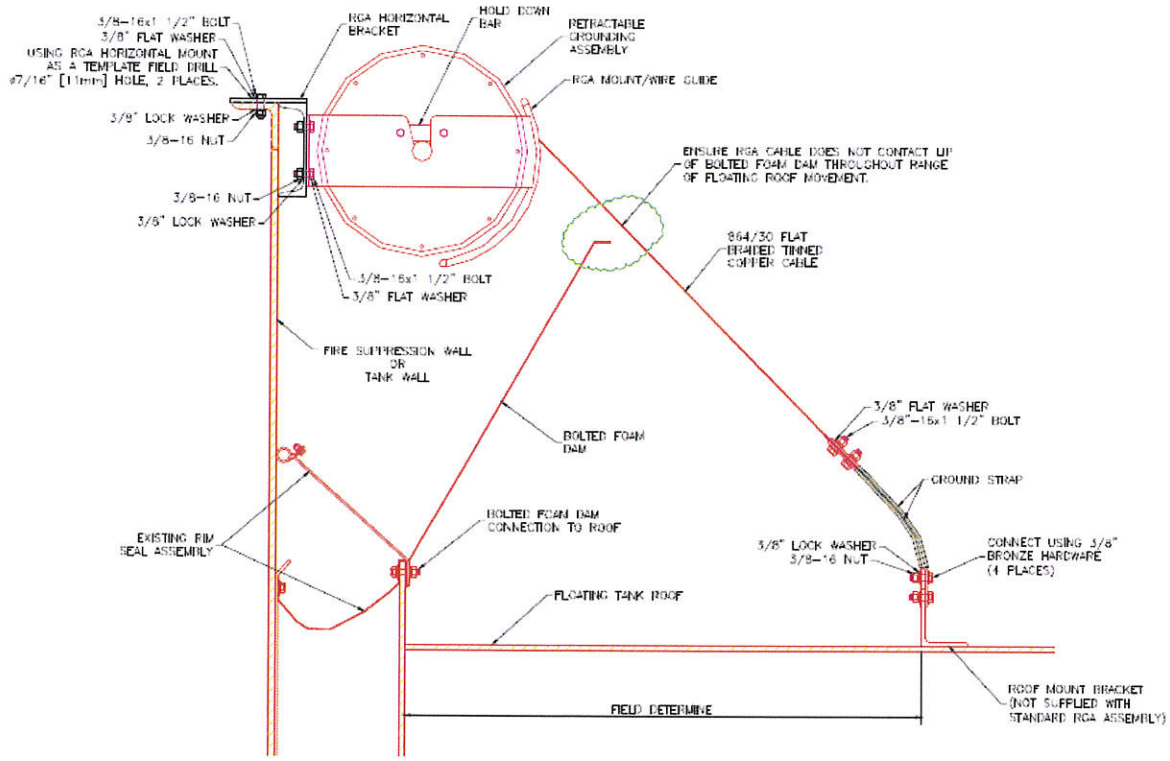

Figure 12: Bolted Foam Dam RGA Installation

Locate a level portion of roof that is vertically aligned with the RGA and sufficiently inboard from the tank wall so that the RGA cable and straps will not rub against any portion of the bolted foam dam as the tank roof rises and falls, as shown in Figure 12. The RGA cable and straps will be nearest to the lip of the foam dam when the tank is at its fullest and the roof is near the top of the tank.

Scrape paint and rust on the roof to bare metal where the custom roof mount bracket (not included in standard RGA installation kit – bracket must be ordered separately) will be placed. Weld the bracket all the way around to the tank roof. If welding is not possible, the bracket may be temporarily attached to the roof by drilling and tapping two (2) 3/8" holes, using the bracket as a template. If the bracket is bolted to the roof, it should be welded in place during the next maintenance shutdown or when feasible to do so.

Apply Lectra Shield to the welded or bolted connection to prevent rusting.

No further assessment is considered necessary.

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Section 3 Conclusion

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Conclusion

The equipment, as detailed on the certificate listed in section 1, with the variation detailed in section 2, are deemed to meet the applicable requirements of the standard EN 13463-1:2001 listed on the original certificates.