# FINAL PRODUCT TEST AND INSPECTION REPORT

1. Applicant Engineered Controls International LLC
   Address 100 RegO Drive, PO Box 247, Elon, NC 27244 USA
2. Manufacturer Engineered Controls International LLC
   Address 100 RegO Drive, PO Box 247, Elon, NC 27244 USA

AAR No. E-099019
AAR Docket No.
AAR Service Trial No. ST434
Date 11-7-13

3. Description of device Tank Car Angle Valve w/ Excess Flow Valve
4. Device designation or model no. TA7814 (A7814 & A3214V/L)
5. Total number of devices in service 31
6. Number of devices for teardown 3
7. Service data from latest Form AAR 4-4 dated 11/01/12
   Total load/unload cycles 12.6 Average
   Total service time 3 Years
   Total loaded mileage 10,910 Average

8. Teardown data

| | Sample 1 | Sample 2 | Sample 3 | Sample 4 | Sample 5 |
|---|---|---|---|---|---|
| From car number | TILX500771 | TILX500772 | TILX500765 | | |
| Last lading | Anhydrous Ammonia | Anhydrous Ammonia | Anhydrous Ammonia | | |
| Model number | TA7814 | TA7814 | TA7814 | | |
| Serial number | N/A | N/A | N/A | | |
| Test pressure, psi (kPa) | 500/440 | 500/440 | 500/440 | | |
| Test temperature, °F (°C) | 70°F | 70°F | 70°F | | |
| Test medium | Air | Air | Air | | |
| Cycles | 3 | 3 | 3 | | |
| STD psi (kPa) | | | | | |
| Vapor tight, psi (kPa) | | | | | |
| Test remarks | No Leaks After Average | No Leaks | No Leaks | | |
| Physical condition | As Received | As Received | As Received | | |
| Compare critical final dimensions to original | | | | | |
| 9. Drawing numbers (Ref. Form AAR 4-3 or AAR 4-5) | | | | | |
| Revisions made | | | | | |
| Revision date | | | | | |

10. Conclusions See Attached.

11. Recommendations to Tank Car Committee

12. CERTIFICATION
The above data is correct and complies with the AAR Specifications for Tank Cars, Appendix A. Devices tested conform to the drawings listed above.

MANUFACTURER or APPLICANT
(Signature)
Title Engineering Manger
Company Engineered Controls International LLC

INDEPENDENT OBSERVER
(Signature)
Title Sr. Inspector
Company TTCP - BOE

13. APPROVAL AAR Tank Car Committee
Date approved OCT 07 2014
Kenneth B Dorsey
(Signature) on behalf of Tank Car Committee

NOTE: The AAR Tank Car Committee reserves the right to designate an independent observer to be present during test and teardown activity.

Form AAR 4-6 Revised 10-17-86