TUV INDIA PRIVATE LIMITED

Classic Towers, Office No 2A, Second floor 1547, Trichy road, Coimbatore- 641018



Fugitive Emissions Certificate: 8114381661/02

This is to certify that the 12" Class 1500 Gate Valve Manufactured and Tested by

M/s. L&T Valves Limited

As per Fugitive Emissions standard

API 624 First edition, February 2014

Complies with the ≤100 ppmv stem leakage (Static & Dynamic) acceptance criteria

Valve Information

| Manufacturer & Location | L&T Valves Limited, Tamil Nadu, India |
|------------------------------|---|
| Valve size, Class & Type | 12" Class 1500 - Gate Valve |
| Serial Number | 16C129959 |
| Valve stem type | Rising (Non-rotating) Stem |
| API/ASME Design Standard(s) | API 600 |
| General Assembly Drawing No. | 757613-HP-101 |
| Body material | ASTM A216 GR WCB |
| Stem material | ASTM A182 GR F6a |
| Body-Bonnet connection type | Bolted |
| Body Bonnet gasket | RTJ - SS 316 |
| Valve selection | Random |
| Packing Manufacturer | Teadit |
| Packing Model type | Style 2236 (Flexible Braided Graphite with Inconel Reinforcement) |
| Test duration | 16.01.2017 to 19.01.2017 |

Test Results

| Test Pressure | 41.4 barg |
|--|------------------|
| Maximum Test Temperature | 260° C |
| Number of Mechanical cycles completed | 310 |
| Number of Thermal cycles completed | 3 |
| Maximum Allowable Stem Seal Leakage | 100 ppmv Methane |
| Maximum Actual Stem Seal Leakage | 25 ppmv Methane |
| Did Test valve pass the test requirement | Yes |

Qualification

| Valves Qualified (Sec 10, API 624) | Gate Valves from 8" to 14" of Class 900 and 1500 |
|------------------------------------|--|
| valves Qualified (Sec 10, AFT 024) | Gate valves from 6 to 14 of class 700 and 1300 |

This Certificate is valid in conjunction with test report No. LTV- DDVL-1404 dated 19/01/2017 and tested as per test procedure LTV-DEP-749-R0

V Chandrasekaran

19th January 2017

Surveyor to TUV India