

**PRODUCT SAFETY BULLETIN**  
**TESCOM™ 44-5800 Electric Vaporizing Regulator Series**  
**Date of Manufacture: July 2009 through February 2015**

**April 10, 2015**

**To: CUSTOMERS WHO PURCHASED TESCOM 44-5800 ELECTRIC VAPORIZING REGULATOR SERIES.**

Dear Customer:

Our records indicate that you have purchased a TESCOM 44-5800 electric vaporizing regulator. This safety notice should be forwarded to the personnel in charge of safety and/or process management. **Please carefully read this Product Safety Bulletin and perform the Required Actions.**

**Background:**

TESCOM is committed to world class quality and reliability. In our continuous pursuit of this goal, it is standard practice for us to evaluate customer returns. Our recent evaluation of one customer return indicated that the surface temperature of the regulator had exceeded the ATEX T4 (135°C) temperature certification.

Subsequent testing was conducted to determine the root cause, but we were not able to replicate the customer issue. These results led us to perform a detailed evaluation of the 44-5800 series regulator. We conducted extensive testing under conservative operating conditions which are listed below:

**Product Testing Conditions**

- Maximum ambient temperatures of 65°C
- Enclosed test chamber with no air circulation
- 110% of rated voltage (per the ATEX testing procedures)
- Separate tests were conducted with no fluid flow and with nitrogen gas flow through the regulator to evaluate the effect of flow on regulator surface temperature

**WARNING! Under these conditions we identified a heat concentration zone that exceeds the ATEX T4 surface temperature classification limit of 135°C, which under certain environmental conditions may result in fire or explosion.** This zone is located at the junction where the regulator body (bonnet) is joined to the electrical housing by a threaded connection, reference Figure 1. This heat concentration zone was not detected during initial certification of the 44-5800 series by the ATEX certification service. Test measurements, under laboratory conditions stated above, indicated that this zone may reach temperatures up to 175°C, which exceeds the 44-5800 series' current ATEX T4 (135°C) rating. We are working with our certification agency to address our findings and will be pursuing a re-rating of the 44-5800 series from its current T4 (135°C) to the T3 (200°C) ATEX temperature class. This recent discovery in conjunction with the forthcoming European directive 2014/34/EU has initiated further evaluation to enhance the design of the 44-5800 electric vaporizing regulator series.

**Required Actions:**

1. Identify all models of TESCOM 44-5800 electric vaporizing regulators that you have in service or in inventory.
2. Verify that the regulator's operating surface temperature is suitable for the installation requirements by measuring the surface temperature at the location shown in Figure 1. We recommend that temperature measurement be taken when the environmental and operating conditions are likely to produce the highest surface temperature conditions. If the measured operating temperature is higher than required for the application, remove the 44-5800 electric vaporizing regulator from service.
3. If your operating conditions require the ATEX T4 (135°C) temperature rating, you should immediately remove the regulator from service.
4. If you have resold or transferred any of the products in question, please forward this Product Safety Bulletin to the transferee immediately so that they may take the appropriate action or advise TESCOM immediately of the name and address of the transferee so that we may forward this information to them.

For any additional questions contact TESCOM by emailing [445800Questions@emerson.com](mailto:445800Questions@emerson.com) or calling (800) 653-3211 for US customers and +1 763 241 3134 for international customers.

