Neo-Dyn

ITT Industries

Neo-Dyn
28150 Industry Drive
Valencia, CA 91355
Telephone (805) 295-4216
Fax (805) 295-4040

Subject: Compliance of ITT Aerospace Controls Temperature Switches to NACE Standard MR-0175-95 (1995 Revision)

Reference: The referenced standard covers metallic material requirements for resistance to sulfide stress cracking (SSC) for petro-chemical applications to be used in H_2S bearing hydrocarbon service. The specification clearly states "The user shall determine whether the environmental conditions fall within the scope of this document." To assist the user in making this judgment, we will define our interpretations of the Standard with respect to ITT products:

> Sour Gas - The standard states " Materials shall be selected to be resistant to SSC or the environment should be controlled if the gas being handled is at a total pressure of 0.4 MPa (65 psia) or greater and if the partial pressure of H_2S in the gas is greater than 0.0003 MPa (0.05 psia). Systems operating below 0.4 MPa (65 psia) total pressure or below 0.0003MPa (0.05 psia) H_2S partial pressure are outside the scope of this standard."

The first assumption that ITT makes is that the above combination of conditions can only occur in the process media and therefore only applies to the wetted materials.

> Sour Oil and Multiphases - If the concentration of H_2S is less than 15%, the NACE standard indicates that no SSC will occur below 70 psia (See figure 2 of standard). Again, ITT assumes that the condition for SSC can only occur at the process media wetted materials.

The end user must be satisfied with ITT's interpretation of the Standard. Assuming the interpretation to be correct, wetted materials used in the following ITT Temperature Switches, as described in ITT Neo-Dyn® catalog 37M, comply with the referenced standard:

Series	100T/TC
	132T/TC

Other Temperature Switches not listed do not necessarily meet the material requirements of the referenced standard.

Jim Georgeson
Project Engineer

Revised 98/09/30