

A letter to the editor

Thinking about TT standards

by Alaster Goyns

Dear editor

It was my privilege to review the draft SASTT technical standard for sliplining on behalf of the board of SASTT. This prompted some thoughts and I felt the need to respond in some detail regarding the matter of SASTT standards for trenchless technology.

Hence this comment is not on the detail of the current draft but about the need for developing installation standards, design recommendations and product standards for a particular technique as a package. Here are a few comments on the subject.

The easy part of writing standards is actually writing those that apply to installation. If things don't work the standard can be changed so that it is a bit more conservative and it is hoped that it will cover all eventualities.

This is not engineering. When things really go wrong, nobody understands why. It also costs a lot more to do the work *and* fix those unexpected problems!

As engineers, and in particular as designers, we will not understand how things work and how they fail if we do not make the effort to understand the science and the mathematics.

With many trenchless techniques the pulling or pushing forces can be measured and problems prevented, but the scientific reason for these forces and the resulting problems cannot be explained.

Design standards are needed so that all the possibilities can be evaluated before the contractor starts. Secondly, product standards are needed to ensure that the product/pipe is tested to prove that it is fit for its intended purpose.

The designer needs to determine whether the stresses during installation are going to exceed those generated during the operation of the service, so that the critical loading conditions are met during installation and operation.

The critical condition in use may be durability, yet the focus of the design is on product strength. In the case of flexible pipes the critical condition is frequently considered to be pipe stiffness or pressure rating, when actually it should be soil stiffness.

The determination of these parameters and their relative importance is not covered in construction standards. However, if these parameters are not adequately addressed in the design standards, this may well cause a problem during construction or when the product is in service.

In a similar vein: of what significance is it that a pipe can safely take a given internal pressure while it is being pulled into place, but after that it will be subjected to *external loads*?

I trust this explains in very basic terms why there should be design, product and installation standards that are written so that they ensure the product will cost-effectively serve its purpose and that the designer, supplier and contractor will all make a contribution towards achieving this.

To repeat and belabour the point: in the old school we were taught to appreciate that if we ignored the science and mathematics, we would not really understand what we were doing - and we would have to face the consequences! I'm sure that you will agree with this.

This is food for thought indeed. The editor could not agree more!

SASTT technical standard: Sliplining of pipes

Draft for comment

Two months ago, this news item was mailed to all members but it is such an important issue that the board has asked that a reminder be placed in *SASTT News*.

The members of SASTT have been steadily made aware that SASTT has been working on the development of a standard for sliplining.

This effort has finally been rewarded: SASTT has published the draft standard on the website - see <http://www.sastt.org.za/>

Please visit the website, click on the announcement of the standard, study it and let us have your comments and suggestions for amendments, corrections and improvements.

The responses from several members have been of immense value. If, however, you have not yet responded please do so before end of business on Friday 13 August 2010.

Kindly send your remarks to the honorary director.

29th International No-Dig 2011 in Berlin

Call for papers

The International and German Societies for Trenchless Technology (ISTT/GSTT) are now accepting abstracts for the 29th *International No-Dig 2011* in Berlin, which will be held at the Berlin Exhibition Grounds (*Messe Berlin*) on 3 to 5 May 2011.



Submission deadline: 15 December 2010

Prospective authors are invited to submit a 300-word abstract (in English) outlining the scope of their paper and the principal points of benefit to the trenchless industry. The abstracts must be submitted electronically via the *No-Dig* websites at www.nodigberlin2011.com or www.istt.com by 15 December 2010.

The *No-Dig 2011* conference committee will review abstracts in late December and notify the principal authors of acceptance immediately afterward.

To ensure meaningful technical content, all papers for 29th *International No-Dig 2011* in Berlin will be peer-reviewed.

Final papers will be published in the conference proceedings.

Please submit your abstract

Questions? Please contact:

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