Recent Controversial Articles and their Impact on IEM

By : The Committee of Geotechnical Engineering Technical Division

INTRODUCTION

Recently a few articles were published in the IEM Bulletin, Jurutera, concerning Dynamic Pile Testing, which is in the field of Geotechnical Engineering. These articles have created a certain amount of controversy, partly relating to the suitability of these articles from the perspective of IEM as a learned society. Consequently, the Geotechnical Engineering Technical Division has been requested to study this matter and to provide a closure to this episode.

In the course of this exercise the Geotechnical Division has also communicated its findings and concerns to the President of IEM and to the Professional Practice Committee of IEM. These findings and concerns are highlighted below in this article. It represents the views of the Committee of the Geotechnical Division and is published with the approval of the Committee.

THE CONTROVERSIAL ARTICLES

In the June 2006 issue of the Bulletin, an article entitled "Understanding Dynamic Pile Testing and Driveability" was published by Engr. Dr Sam Ming Tuck. This is referred to as Article No. 1. Soon after publication strong criticisms were expressed by a member, Engr. Mun Kwai Peng, in a Letter to the Editor which was published in the August 2006 issue of the Bulletin, herein referred to as Article No. 2. The published discussion by Engr. Mun was met with a strong reaction from the author, Engr. Dr Sam, when he published a lengthy reply in the April 2007 issue of the Bulletin, in an attempt to defend himself. This is referred to as Article No. 3.

VIEWS OF THE GEOTECHNICAL DIVISION ON THE CONTROVERSIAL ARTICLES

The Committee of the Geotechnical Division has examined carefully all three Articles: No. 1, 2 and 3; and has also deliberated at length the quality, merits and suitability of these articles from the perspective of IEM , befitting the status of our Institution as a learned society. Our views are outlined below.

Article No. 1 (Engr. Dr Sam's initial article) contains at least one mistake, i.e. in Equation 3. In addition, it is also biased since it only highlights the advantages of dynamic load testing, which is the subject matter of the article, but fails to mention any of the important inherent drawbacks which are associated with this technique. The most serious shortcoming is that this article is misleading, since it makes a recommendation concerning an important aspect of engineering practice (i.e. "....dynamic pile load test has become widely accepted as an alternative to the static load test due to its advantages of being cheap, simple and fast.") which is directly contrary to the recommendation of most authoritative references on this subject, see for example FPS and ICE (1999). **This article can therefore mislead any engineer who does not have adequate experience in this field.** A crucial omission of the article concerns the reliability and confidence level of dynamic load testing. The article should have explained the role of dynamic load testing in relation to that of the conventional well-proven static load testing, in particular the essential requirement that, for any site, dynamic load testing must first be calibrated using static load testing before it can be used with confidence.

Article No. 2 (Engr. Mun's discussion on Article No. 1) falls short of the normal IEM standards. For example, part of Engr. Mun's strong criticisms is speculative in nature without firm evidence to support his case. Another unsatisfactory aspect of this article is that it is not written in the recommended conventional scientific/ engineering style whereby criticisms, however strong, are expressed in an objective and detached manner, without being personal in any way. Instead, Engr. Mun uses strong disparaging language in his criticisms. This is not permitted in the scientific/engineering literature because it is distracting and off-putting to the reader and smacks of a personal argument or quarrel. The author concludes with a strong negative personal opinion of Engr. Dr Sam.

Article No. 3 (Engr. Dr Sam's reply) is also of inadequate standard in technical content. For example, it contains more than one incorrect statement which many engineers in this field will not accept. Apart from its excessive length, another unsatisfactory aspect of this article is that the language used is hostile and personal when responding to Engr. Mun's criticisms. Finally, the conclusion referring to Engr. Mun's discussion (i.e. "...all the comments had been technically incorrect and factually wrong.") does not stand up to scrutiny.

In summary, it is the considered opinion of the Committee of the Geotechnical Division that all three articles reviewed above are sub-standard.

IMPACT ON IEM AS A NATIONAL INSTITUTION

Our membership at large looks up to IEM as the sole national learned society in the engineering field, and expects that any technical material published by IEM should be of high standard (e.g. reliable) and suitable for guidance in their professional career. This is to be expected in any reputable national professional institution. Unfortunately, this is not the case in the present episode. This cannot be allowed to continue.

If this is allowed to continue, then there will be a general disappointment in IEM and few engineers will take our publications seriously.

PROPOSAL

This episode illustrates a serious shortcoming in the control of quality in IEM publications. The net result now is that three highly unsuitable articles have been published in the IEM Bulletin.

Since this is a policy matter involving IEM as a whole, the Geotechnical Division has communicated with the President of IEM highlighting our findings and concerns, and recommended that IEM should adopt the following policy outlined below regarding any publication in the IEM Bulletin and the Journal. This policy, apart from ensuring that the desired quality is achieved, is also aimed at safeguarding the interests of IEM in the present environment in which there are people who may be only too ready to exploit the IEM platform for their own advantage, whether commercial or personal. This tendency is on the increase, and IEM should act accordingly.

The policy outlined below is not new, even to IEM, and similar policies are followed by other reputable learned societies overseas, such as the Institution of Civil Engineers (UK) and the American Society of Civil Engineers. According to this policy, before IEM publishes any material, say in Geotechnical Engineering, this material should be properly assessed by a competent party in this field concerning the quality and suitability for publication. A similar requirement should also be applicable to other fields of engineering. In the case of Geotechnical Engineering the competent party should be the Committee of the Division. For various reasons, this is in preference to choosing an individual for this role.

Similarly, any comments by readers in the form of Letters to the Editor and reply by the authors should also be assessed prior to publication.

We are pleased to note that since taking up this matter with the President, IEM has adopted the policy described above. Accordingly, the Excomm of IEM has recently directed that all technical materials for the Bulletin and the Journal should be properly assessed by the relevant parties before publication. ■

REFERENCES

[1] The Federation of Piling Specialists and Institution of Civil Engineers (UK), "The Essential Guide to the ICE Specification for Piling and Embedded Retaining Walls", 1999, p.36