

EUROCODE 7 – THE ATTACHMENTS.

An update on progress

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We trust that by now all readers are aware that, in addition to the two parts of Eurocode 7¹, there are a number of other Standards which are required to make up the complete set for use in ground investigations and geotechnical design practice. There are the National Annexes that go with the two parts, and then there are a number of attachments which are called up in Eurocode 7 Part 2. These are not all yet available, and this article provides an update on the current position in 2011.

A number of the Standards have been published and implemented into UK practice, as listed in Table 1. At the same time as implementation, the corresponding parts of any conflicting BS have been withdrawn, hence Clauses 3.2 and 3.3 of BS 1377 Part 9 no longer exist and should not be referred to in specification, practice or reporting and BS5930 has undergone two sets of amendments as highlighted in Table 1

Table 1 Standards published and implemented at the time of writing

Standard number	Coverage of Standard	Comment
BS EN ISO 22475/1	Sampling and groundwater measurement	Implemented. Changes incorporated in BS5930+A2
<u>BS 22475/2</u>	Qualification of enterprises and personnel	Now published as normative British Standards.
<u>BS 22475/3</u>	Conformity assessment of enterprises and personnel	
BS EN ISO 22476/2	Dynamic probing	Implemented Clauses 3.2 and 3.3 of BS 1377 Part 9 withdrawn. Changes incorporated in BS5930+A2
BS EN ISO 22476/3	Standard Penetration test	
BS EN ISO 22476/10 (TS)	Weight sounding test	Implemented; not widely used in UK
BS EN ISO 22476/11 (TS)	Flat dilatometer test	
BS EN ISO 22476/12	Mechanical CPT	Implemented but no action as no precedent BS
BS EN ISO 14688/1	Soil description	Implemented. Changes incorporated in BS5930+A2
BS EN ISO 14688/2	Soil classification	

¹ Note that Corrigendum have been issued for both Part 1 (2009) and Part 2 (2010) of EC7

BS EN ISO 14689/1	Rock description and classification	
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That is a total 11 standards to date that we use in routine practice in the UK. The implementation of these has not been straightforward and some key issues will require further work at national and European level.

However, the story does not end there as a number of other Standards listed in Table 2 have now been drafted, commented upon and have finalised text and are due to be published shortly, and possibly this year.

Table 2 Standards that will shortly be published

Standard number	Coverage of Standard
22476 - Field testing	/1 Electrical Cone and piezocone penetration tests /4 Ménard Pressuremeter /5 Flexible dilatometer /6 Self boring p/meter /7 Borehole Jacking test /8 Full displacement p/meter /9 Field vane test
22282 - Geohydraulic tests	/1 General rules /2 Water permeability test in borehole without packer /3 Water pressure test in rock /4 Pumping tests /5 Infiltrometer tests /6 Closed packer systems

This list comprises a further 13 standards that will need to be implemented into national practice within 6 months of publication. That will require a major effort by industry at a time of difficult trading conditions. This is not a happy coincidence in timing.

There are also a number of other Standards, (20 or so) which are further from publication, but which are called up in EC7 Part 2. The date of publication of these Standards is not known, but is likely to be within two to three years.

And that is still not the end of the story. Work has begun in other areas of investigation and testing on Standards which are not, at this stage, referred to in Eurocode Part 2; that omission will be corrected as the Standards are published. The UK mirror committee (B/526/3) is charged with the implementation of all these Standards in a timely manner, but we cannot do this alone. We can publish news editorial as the above listed Standards come into circulation, but we need the help of industry. In particular, we aim to encourage volunteers to digest and publish critical but helpful summaries of the new Standards. This was carried out for those Standards already implemented (22476/2 and 22476/32, 14688/1, 14688/2 and 14689/1)

and the relevant articles were published in Ground Engineering. The take up of these was still slow, and we will all need to do better in the years to come. The main reason for this is that if we do not implement smoothly and rapidly we will be operating parallel systems of old and new. This will be inefficient and cause errors and misunderstandings.

Finally, readers should note that there are maintenance and feedback systems in place for getting standards corrected and amended. This is not an easy or rapid process, but if you have any critical comments please submit these officially to BSI (cc to authors) and they will find their way to B/526/3 for action. It is not intended that the Eurocodes and the attachments will be fossilised as at the time of publication, and so UK industry can provide a positive lead in Europe to making these Standards better.

NOTE to READERS - amendments to the DP and SPT EN ISO Standards are shortly to be published; whilst the changes in these align closer to UK practice, keep your eyes open for these and other changes.