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Work Permits to involve less Red Tape

There is big news for the Industry with a new addition of Geotechnical Engineers to the Shortage Occupations List for Work Permit purposes.

Inclusion on the Shortage Occupation List means Geotechnical Engineers join such professions as Railway Engineers, Doctors, Nurses and Teachers (a surprisingly short list, given the known shortages in many sectors).

The change will mean that companies applying for work permits will no longer have to demonstrate that the post cannot be filled from within the UK or EU. This will make it easier to recruit from Australia, New Zealand and elsewhere. Previously full details and supporting evidence had to be provided to show what advertising had already been undertaken to recruit a 'resident worker'. This included details of responses received and reasons why each applicant had not been employed.

The definition of Geotechnical Engineer will cover the following Ground Engineering related occupations:-

Geoenvironmental Engineer;
Geotechnical Engineer;
Geological Advisor;
Geological Analyst;
Geological Associate;
Geological Engineer;
Geologist/Hydrogeologist;
Geology/Reservoir Engineer;
Geomechanics Engineer;
Geophysical Specialist;
Geophysicist;
Geoscientist;
Geosupport Engineer;
Engineering Geologist;
Ground Engineer;
Contaminated Land Specialist

Previously to obtain a work permit for an overseas employee an employer was required to complete a 12 page application form. Applicants will now be able to jump from Page 7 direct to Page 12 of the application form.

The announcement that Geotechnical Engineers had been included on the Shortage Occupation List was made on the Work Permits website on Monday 20th June and can be seen at www.workingintheUK.gov.uk and following the links to work permits - applying for a work permit - business and commercial.

AGS Format Conference

Production, Management and Application of Geotechnical and Geoenvironmental Data in Electronic Format

19 October 2005

National Motorcycle Museum, Birmingham

Background

AGS Format Conference

This one day international conference will explain the background to the AGS format and details of the changes embodied in AGS 3.1. It will deal with the management of data, present case histories, discuss problems and solutions and through discussion and presentation, consider further applications and what the characteristics of future formats will be. Papers have already been accepted from authors in the USA, Italy, the Netherlands as well as in the UK.

Sessions:

- Changes in AGS 3.1
- AGS transfer format and databases
- Case histories
- AGSML
- The Future: AGS4, AGE-C/E

Registration is now open and those registering before 1 September will benefit from an early bird reduction. Registration fees before 1 September will be £95 for AGS Members and £120 for non Members. From 1 September these will increase to £110 and £135 respectively. (Students £60). There will be an informal conference dinner in the nearby Manor Hotel after the event.

A registration form is enclosed (or can be downloaded from the www.ags.org.uk)

AGS Hotlines

Chemical Hotline

(to answer questions about chemical safety issues) Marquis & Lord 0800 083 4610 - ask for the Chemical Hotline.

Contracts Hotline

(Free legal advice on contractual matters) Stephen Francis at Eversheds - Tel: 0207 919 0925

“The site investigation industry is launching a series of initiatives to improve client awareness,” says Jim Cook.

The need, quality and sufficiency of site investigations has been of paramount importance since the early 1960s and the issue of client awareness of the benefits of site investigation have been well-discussed within construction industry.

In the late 1950s, Foundation Engineering produced the film “The problem below” to address this issue. The film described and projected the need and benefits of carrying out site investigations. A project in Boness in Scotland was selected for filming.

I recently saw this film again for the first time in about 20 years. Although the aircraft at Glasgow Airport was a Viscount turbo prop and the drilling rig a Conrad “slip rope” rig (with square boring rods and tools), the requirements for quality, sufficiency, client understanding and “buy-in” were well portrayed and appeared to be well understood.

Today’s clients are more likely to develop a project and move on as fast as possible to the next one, with many (if not all) the responsibilities and liabilities being devolved down the supply chain to architects, consultants and builders, by the use of sometimes onerous terms of engagement, including multi-assigned warranties. In dealing with these clients, the ground is generally taken for granted. When projects involve the redevelopment of brownfield sites the concerns of contamination and perceived high risk associated with this seem to become more evident, however.

Local planning authorities’ requirements and stipulations for such sites generally ensure the client and their team consider the geoenvironmental issues at pre-planning submission stage. The

desire to obtain planning permission and the need to tackle contamination risk issues act as drivers for undertaking geoenvironmental investigations. In many instances however, the initial site investigation ignores some of the main geotechnical issues. How often is a geoenvironmental site investigation – which usually does not even include the most basic in situ geotechnical tests such as a standard penetration test – offered to a piling contractor for them to design, price and carry out foundation work?

When clients are in the early stages of conceiving a project they need to establish a funder, insurer and a project management team as well as the usual engineering consultancy service providers. The consultancy service providers called upon in the initial stages are generally architects and structural engineers, who usually may only see the above ground structure. The introduction of the geotechnical adviser into a project team at an early stage has been strongly advocated over the past ten years by the Institution of Civil Engineers and Association of Geotechnical and Geoenvironmental Specialists (AGS) but in many cases this is not happening.

The structural engineers in some instances see themselves as capable of undertaking this geotechnical role or are unaware of the good practice guidelines laid down by AGS and others. To address the situation and develop more client awareness, the industry needs access to the commercial team. To this end, AGS will shortly be completing its project benchmarking scheme, which will provide an assessment and score for each project where there is ground engineering site investigation input.

The scoring system is based on Key Performance Indicators (KPIs) for the particular geotechnical activities undertaken within ten selected groupings, including one for client satisfaction. This initiative is likely to eventually provide a substantial database of assessed projects, which can then set the norm for good, moderate and poor site investigation input. Information from project benchmarking and KPI scoring can also be developed to provide the client’s commercial team with a simple “traffic light” risk assessment of the project. It will then be simple to show the benefits of carrying out a full ground engineering site investigation service – desk study, phased intrusive ground study, associated supervision, laboratory testing and ground engineering advice.

The AGS and Federation of Piling Specialists recently had discussions concerning the quality and sufficiency of site investigation reports provided to foundation contractors, and agreed to consider a joint advisory paper, likely to be called “Guide to foundations”, published as part of the AGS Clients Guides. CDM regulations are also expected to be included. AGS members recognise the need for the Site Investigation Steering Group (SISG) series of publications to be redrafted and published as soon as possible, as the 1993 editions are well out of date. There are plans within the fraternity to arrange for the SISG Specification (Yellow book) to be redrafted within the next year or so.

Jim Cook is chairman of the Association of Geotechnical and Geoenvironmental Specialists and director of Buro Happold’s Ground Engineering group.

Outgoing Chairman gives his assessment of the issues affecting the AGS

At the AGM on 23 March, outgoing Chairman Hugh Mallett gave an impassioned summary of the key issues affecting the geotechnical and geoenvironmental industry and Members of the AGS.

Electronic Transfer of Data

Key points in the development of the format have been:

- The adoption of a data dictionary approach
- 1st Edition (1992); 2nd Edition (1994); 3rd Edition (1999) web.
- AGS3.1 available for download 2005 extended scope to cover monitoring data

He thanked the Chairman and Members of the Electronic Format WG in particular. They had brought huge credit to the AGS and had done an enormous amount of work which was now receiving international recognition.

Publication of Contamination Guidance

Since the 1990's there have been successive delays in the publication of guidance documents (eg BS10175; Soil Guideline Values; Model Procedures; Waste Management Criteria). There are now expectations that the Task Force formed by the Cabinet Office in 2004 (on which the AGS have representation) will expedite the publication of SGV's, but the continuing problems with the CLEA software (written with public funds) are scandalous and need to be resolved.

The AGS, however, can be pleased with the Guidance it has issued (Combined Geotechnical and Geoenvironmental Investigations; Cover Systems; and contributions to CIRIA work).

He lambasted the EA for always striving for a 'Rolls Royce' solution - when the immediate need is for a 'Ford Escort'.

Developing Professionalism

Considerable progress has been made over the last 20 years - but there is still work to do. The need to be Chartered is now generally accepted, and the SILC designation (to which the AGS has made a major contribution) has been a step forward for geoenvironmentalists. Employers are beginning to recognise their training responsibilities (although this is still patchy for junior staff); CPD is recognised as important - but is still not mandatory.

The debate about the need for Registration is important and must go on. When the issue is raised there is usually a 50:50 split between those in favour and those against. This is not a satisfactory situation and more effort is needed to reach a proper consensus.

Management of Commercial Risks

The Loss Prevention WG under the Chairmanship of Steven Francis is continually working to improve awareness of commercial risks in the terms and conditions under which Members work. Guidance published has included:

- Loss Prevention Alerts - which are excellent and worth the cost of the AGS subscription on their own
- The AGS Guide to Collateral Warranties
- The AGS Toolkit

Members are often faced with unreasonable demands from lawyers (ie unreasonable levels of liability for a ridiculously low fee) and demands made after the work has been completed but before payment has been received.

In view of this Steven Francis and Hugh Mallett have met with

He lambasted the EA for always striving for a 'Rolls Royce' solution - when the immediate need is for a 'Ford Escort'.

UKELA (UK Environmental Lawyers Association) and have undertaken to write a document for further negotiation which will hopefully result in agreement on some of the more contentious terms (eg unlimited liability, collateral warranties, power of attorney, etc).

Conclusions

The major challenges to AGS Members remain:-

- downward pressure on fees
- maintaining a proper balance between risk and reward
- positive engagement with clients
- availability and cost of insurance

Very significant technical advances are being made. Remaining cognisant is critical. Above all, the AGS is committed to continuing professional development of the industry.

The Role of an Expert Witness

Introduction

Experts play an important and unique role in the adversarial court process as they are required to provide an independent opinion uninfluenced as to form or content by the exigencies of litigation. The duties of the expert, in civil litigation, were amplified by Part 35 of the Civil Procedure Rules (CPR 35) which enumerates the role of the expert. One would have thought that there would, with the passing of CPR 35, have been little room for development on the role of expert witnesses in litigation. However, there have been a number of significant developments in the past year.

Privilege

The Court in *Alan Jackson v Marley Davenport Ltd* [2004] EWCA Civ 1225 considered the question of whether, if an expert makes an early report to his client before he makes the report which is later disclosed in the litigation as being the evidence he intends to give at trial, the law requires that earlier report to be disclosed. In that case, the Claimant's solicitors instructed an expert witness who prepared a report for the purposes of a conference with lawyers. Thereafter he provided a further report which was served on the defendant and the court. The second report referred to the expert "having now gained additional information". That indicated to the defendant's solicitors that there was an earlier report and they sought disclosure of it believing that it might have expressed a somewhat different view to that in the report presented to the court.

At First Instance, the Court ordered disclosure on the basis that the expert had to comply with CPR 35.10 (3) which provides:

"The expert's report must state the substance of all material instructions, whether written or oral, on the basis of which the report was written."

The Court of Appeal, however overturned that decision on the basis that draft expert reports were protected by litigation privilege. The Court held that the reference in Rule 35.10 to "the expert's report" is a reference to the expert's intended evidence, not the earlier and privileged draft reports.

The Court also considered CPR 35.13 which provides:

"A party who fails to disclose an expert's report may not use the report at the trial or call the expert to give evidence orally unless the court gives permission."

The Court said that merely provided that a report cannot be relied on at trial unless it is first disclosed, nor may an expert give oral evidence without first producing a report, unless the court otherwise orders. It did not mean that earlier draft reports have to be disclosed.

This decision provides solicitors and experts with some comfort that they can discuss earlier draft reports with frankness in the knowledge that the draft reports are protected from disclosure. However, as the case below demonstrates the expert's fundamental duty is to the Court and he must not allow himself to be partisan or to be unreasonably swayed by the instructing client.

Flagrant Breach of Duty

The case of *Jonathan Guy Phillips and others v Robin James Symes and others* [2004] EWCA Civ 1512 in October 2004 has caused much consternation amongst expert witnesses. For the first time, the Court held that it had the power to order costs against an expert who, by his evidence, caused significant expense to be incurred, and did so with flagrant reckless disregard to his duties to the Court.

In that case, the trial judge rejected the evidence of the Respondent's expert as unreliable. The Claimants thus sought to join the expert to the proceedings for the purposes of costs. It was alleged that the expert:

- formed his opinion on an inadequate basis having not considered all relevant factual material;
- refused to reconsider his opinion in light of further material sent to him or even to look at the material despite its relevance to the matters under consideration;
- in verifying his report he failed to act in accordance with the declarations required under CPR 35; and
- assumed a role as an advocate for those instructing him.

The court accepted that the normal rule is that witnesses in court proceedings enjoy immunity from any civil proceedings in respect of evidence given during those proceedings because witnesses needed to be able to give their evidence fearlessly. The court, however, said that the immunity, albeit paramount, was not absolute and concluded that in appropriate circumstances a third party costs order can be brought against an expert witness as a result of the manner in which he gave evidence as a witness.

The Court considered the other sanctions available where the expert flagrantly disregarded his duty to the Court. Firstly, the expert may be in contempt of court or guilty of perjury. Secondly, that the expert's costs could be disallowed either as between their client and another party to the litigation, or between a client and the expert. Thirdly, they could be referred to an appropriate professional body for disciplinary action. The Court, however, considered these sanctions to be "blunt instruments" and said the proper sanction was to order the expert to compensate the person who has suffered loss by reason of that evidence.

For such a costs order to be made against an expert must be more than negligent. Rather, a gross dereliction of duty or recklessness is needed.

The case highlights the needs for experts to provide considered, objective opinions. Experts must assist the Court and in so doing must not be partisan or act like "hired guns".

The Criminal Procedure Rules 2005

Part 33 of the Criminal Procedure Rules 2005 dealing with expert evidence is still to be published. Some commentators consider that the rules may be similar to CPR 35. In any event, the Courts overriding objective, under Rule 1.1, is to deal with cases justly and Rule 1.2 requires all participants to further that objective.

Under S.93 of the Courts Act 2003, the Court can make a third party costs order, which would include an expert witness, if that party has been guilty of gross misconduct.

Conclusion

Recent cases show that the role of expert witnesses will be under constant scrutiny. The decision that drafts reports are privileged and should not be disclosed is to be welcomed as it allows experts to fully consider the case and prepare drafts for discussion without fear that their earlier reports will come back to haunt them. However, experts must remember that their duty is to the Court. They are quasi Court Officer's. Experts now carry the cost of disregarding their duties to the Court and to the fair administration of justice. Should an expert find himself in any difficulty with his client he would be well advised to seek directions from the Court.

Tom Stocker, Associate, Regulatory Department, Eversheds LLP

Consultants Vulnerable To A Conviction?

I suspect that many of you are aware that there has been increasing concern about the number of fatalities and serious accidents on construction sites. The speeding up of construction processes, as the demands of clients on price and delivery are keener, has exposed cracks and weaknesses over 18 years of de-regulation. In recent years there have been a number of safety seminars, but in reality they appear to have made little difference. However, the government now appears to be getting tough and the Health & Safety Executive is sending out the clear message that it intends to address failings in all parts of the construction industry. Whilst the media concentrates on the legal imposition of safety duties on directors and bosses, it is clear the agency are now targeting consultants in an attempt to “clean up” an industry where serious accidents and fatalities regularly occur.

There are three main types of health and safety offences. (a) Manslaughter by gross negligence, (b) Offences under the Health & Safety at Work Act 1974 (“HSWA”) and (c) Offences under regulations issued under HSWA.

In this article, I will concentrate on offences under the Health & Safety at Work Act 1974, as this has been a growing cause of concern amongst consultants. More specifically, interest has focused on various prosecutions under Section 3(1) of the Health & Safety at Work Act 1974.

Section 3 states that *“it shall be the duty of every employer to conduct his undertaking in such a way as to ensure, so far as is reasonably practicable, that persons not in his employment, who maybe affected thereby are not exposed to risks to their health and safety”*. It was this section that became a focus for the prosecution of Lindsey Barr Associates (a firm of consulting engineers) in relation to the unfortunate death of a contractor who was killed whilst carrying out refurbishment work, when a large section from the base of a foundation fell on him. Lindsey Barr Associates were prosecuted under Section 3(1) and this case illustrates the difficulty that all defendants will have in fighting a prosecution under Section 3(1).

The core issue is that an enormously wide interpretation can be applied to the term “so far as was reasonable practicable”. How does one prove that everything reasonably practicable was done to ensure safety? I think we would all agree that there is nearly always some other measure that could have been employed to ensure safety, even if that measure was not realistic, given the particular set of circumstances.

This section causes perhaps even more concern, when one considers that it is likely that where a serious offence is alleged to have been committed, the case is likely to be tried before a jury who may well be expected to understand complex, and at times confusing, issues without the benefit of a consultant background. It is not surprisingly that in such circumstances, a jury will often take a look at all the different factors and consider what they would have done in certain situations, regardless of how the law should strictly be

interpreted. As such, it is arguably difficult to honestly review an incident without the benefit of hindsight.

Should a consultant fall foul of the HSWA, offences are triable summarily in the Magistrates Court or on indictment at the Crown Court. An offence under the Act could result in imposition of an improvement or prohibition notice or a full prosecution, if so in the latter case, in the Magistrates Court there is a maximum fine of £20,000 and/or six months imprisonment and in the Crown Court, unlimited fine and/or two years imprisonment.

Penalties for contravention of Section 3 can be harsh, and in the Lindsey Barr case, the consultants were fined £45,000 and ordered to pay £30,000 in costs. The court will take a number of factors into account, such as the degree of risk connected to the danger created by offence, and how far short of expectations did the defendant fall. The court will also take into account the defendant’s resources, but it is emphasised that the fine needs to be large enough to push health and safety matters to the forefront of the defendants’ minds. Other relevant factors will be matters such as the incident resulting in a fatality, or a consistent failure to heed warnings or the deliberate taking of risks for financial reasons.

The defendant may seek to mitigate it’s sentence by showing that he took action to remedy defects as soon as he was made aware of them, showing that he has a good safety record without any previous convictions, and that it has a good accident record in terms of number and severity of reported accidents. The level of resources of the defendant are also important, and the defendant will have to supply accounts and other financial information which is relevant to the prosecutor.

At present there have only been one or two prosecutions of designers under the Health & Safety at Work Act 1974 rather than the Construction (Design and Management) Regulations. However, I would have thought that the HSE will seek to ensure that many more consultants are prosecuted in the future. Ignorance of the legal impact of the Health & Safety at Work Act is leaving consultants vulnerable to criminal convictions for accidents on projects that they are designing and it is important that the Act is borne in mind, as if prosecuted under the Act, the effect of the consultant having to show and to prove that it took “reasonable and practicable” steps to protect workers from foreseeable risks, effectively reverses the burden of proof from the prosecution to the defendant. A hurdle, which to my mind, will in many cases be impossible to jump.

Michael Salau Email: michael.salau@blm-law.com

Michael Salau is a partner in the Construction and Environmental Group at Berryman's Lace Mawer

SGV Task Force

The Soil Guideline Values Taskforce (SGV TF) is a joint initiative between Government Departments, local authorities and other private and public sector stakeholder groups with the primary objective of providing a means of improving the production programme for Soil Guideline Values.

The group was originally set up by the Cabinet Office Business Regulation Team in 2004 in response to perceived delays in the delivery programme for soil guidelines values. The task force originally comprised public sector bodies (Cabinet Office, ODPM, DEFRA, Food Standards Agency, Health Protection Agency and Environment Agency) who are instrumental in the production process. Following a workshop in November 2004 at which a wider cross-section of interested parties were present, the SGV TF was expanded and a number of other parties are represented on the current task force including the AGS.

Business in 2005 has focused on addressing four principal questions which were highlighted at the November workshop as being the most pressing-

- i) What do SGVs mean and when should they be used?
- ii) How do we speed up production?
- iii) What do we do in situations when SGVs generated by the usual methods are very low (below ambient levels or close to or below detection limits)?
- iv) What do we do about training and information dissemination?

Since the beginning of 2005 there have been three meetings of the expanded task force resulting in some good progress and interesting debate from various parties.

The first and very fundamental questions above has been considered by a sub-group of the task force. Their report will take the form of a draft guidance document on what an SGV is and how SGVs should be applied. This may in due course be released as part of the CLR series or as an addendum to an existing document.

The question of speeding up production of SGVs has occupied a significant amount of task force time. The EA has resource and time limitations which are also called upon in the programme for development of the CLEA UK model, release of which is expected this summer /autumn. Interesting debate revolves around whether SGV production should take precedence over further examination of the algorithms / assumptions in CLEA. (The Chartered Institute of Environmental Health is particularly emphatic in their wish for the SGV's to be produced as soon as possible). The AGS and EIC representatives have been more in favour of concentrating effort into refining models to attempt to reduce, or remove, some of the problems associated with "low" SGVs.

Positive moves have been made toward increasing production capability, including proposals to double the EA team by funding two new posts and by attempting to recruit a private sector secondee partially funded by public sector monies.

On other issues, a sub-group has been set up to identify training needs and to produce initial models of how these can be satisfied. In addition the EA has published on its website the first of what will be a series of bulletins on the CLEA programme.

*Simon Edwards
Merebrook Environmental Engineering Consultants*

Working on Another's Land

Following the publication of Loss Prevention Alert 33, which concerns the matters to which specialists should have regard when working on another's land, a number of AGS members have made specific points and observations of which we ought to make the wider membership aware.

An important point is access to the site. It may well be that the licence itself designates the only route by which the specialist is to have access to and egress from the site in which case, should the specialist enter or leave the site by any other route, he risks committing a trespass and being made a defendant to proceedings. On large and complicated sites, where access by anything other than the agreed route can cause damage to the site (for example to crops) a plan might need to

be appended to the licence to make it clear to the specialist where he should enter and leave. It may also be the case that, in order to enter a site, permission has to be sought from some third party because the specialist's staff or equipment will have to travel over that third party's land. Generally speaking, this is not the specialist's problem and he should leave it to his client or his client's advisors to ensure that the specialist has all the relevant permissions he needs to be able to enter, work on, leave the site as he envisages he will need to. In certain cases therefore, when access to sites might present a difficulty, it is recommended that a clause is included in the specialist's appointment as follows:

The Client warrants and undertakes that all relevant permissions for the consultant/contractor to enter, leave and

work on the site have been obtained and are not subject to any restrictions which might impede, in any respect, the consultant's/contractor's ability to undertake the Services.

The point has been made that there may be occasions where the consultant's work creates unavoidable damage to the site. Typically, site owners will expect to be indemnified against such damage - especially where they have no particular interest or motivation in relation to the transaction the client is envisaging. But in this situation it ought to be made clear that unavoidable damage will be the responsibility of the client. The client will though expect the consultant / contractor to be responsible for unavoidable damage which occurs through his negligence or failure to take care.

Steven Francis, Eversheds

Hand Arm Vibration

HSE are becoming seriously concerned about hand arm vibration while breaking down piles. Members of the Federation of Piling Specialists have experienced difficulties with HSE Inspectors in some regions even when the client has been offered, and refused, the use of a debonding system.

The FPS will be preparing guidance about breaking down piles for publication on their website, and are about to publish the following information on the use of debonding systems:-

- Reinforcement debonding, or any other items attached to the pile reinforcement, can only be placed in the pile to the same tolerances as the pile reinforcement. These tolerances are given in the ICE Specification for Piling and Embedded Retaining Walls 1996. Engineers/Specifiers should therefore specify the same tolerances for pile cut-off-level if such systems are to be used.
- Before specifying reinforcement debonding, or any other related systems, discussions must take place with the piling contractor in order to investigate the practicality of the proposed system for the chosen piling technique, pile size, the prevailing ground conditions. This technique is not universally applicable.
- Any system installed should be protected from damage, otherwise the system may lose all intended benefits. For example, the debonding of bars will not be effective if the bars are bent during or after installation.
- The lifting point for the removal of the concrete over the debonded length should be designed and specified by the main contractor following discussions with the piling contractor.

Consultants should be aware of their responsibilities under CDM and advise clients accordingly.

New Pile Cutting Method

A Federation of Piling Specialist's Member has reported a new Pile Cutting method that appears particularly efficient. Details about The Cropper can be found at: <http://www.mrcropper.co.uk/>

Deadline approaches for CSCS Industry Accreditation for Laboratory Assistants and Technicians

The Industry Accreditation (Grandfather Rights) period for CSCS cards for Laboratory Assistants and Technicians is due to end on 31 August 2005. After this date the only way to obtain the card will be by obtaining the relevant NVQ/SVQ.

Progress towards accreditation based on UKAS requirements has been slow to non-existent (see the Laboratories WG report). Companies who feel the existing cards are not appropriate will need to rely on Site Visitor CSCS cards for staff required to go on site. These require the holder to pass the Health and Safety Test and should be used in conjunction

with a 'letter of non-availability' from CSCS to confirm that there is no suitable occupational card available.

For further information contact the CSCS Helpdesk on 01485 578 777 between 8am and 6pm Monday to Friday.

Environmental Alert

New Hazardous Waste Regulations

NEW REGULATIONS

The Hazardous Waste and List of Wastes Regulations have been introduced replacing the existing Special Waste Regulations 1996 and come into effect on 16th July 2005. The definition of hazardous waste now covers a wider range and includes common items such as fluorescent tubes, television sets and computer monitors. It also covers any product bearing an orange hazard-warning symbol, such as certain types of paints and mastics and also a broader range of contaminated soils.

HAZARDOUS WASTE PRODUCER'S LEGAL RESPONSIBILITIES

Construction sites are classified as hazardous waste producers. The regulations will have a number of impacts on producers:

- All producers of hazardous waste must register the premises at which the waste arises with the Environment Agency.
- Producers must avoid mixing hazardous waste and non-hazardous wastes eg. separate skips.
- Producers must still complete a consignment note. There is a new format for consignment notes and guidance is available from the Environment Agency to assist with their completion.
- The regulations require the Environment Agency to inspect producers of hazardous waste who can prosecute or issue a fixed penalty notice (£300) for the failure to comply with the requirements of the regulations.

NOTIFICATION

All hazardous waste producers must notify their premises to the Environment Agency by the 15th July 2005 and every time a new site starts producing hazardous waste. It will be an offence to produce or remove hazardous waste from any premises that are not notified or exempt, after this date.

The notification, which needs to be renewed after 12 months, will be accompanied by a registration code (or premises code) that must be written on all consignment notes.

A list of 'Frequently Asked Questions' can be found at www.defra.gov.uk/environment/waste

UKAS Accreditation for Laboratories

The AGS View

Introduction

UKAS accreditation is mandatory for analytical and materials testing laboratories working on most Government funded projects, with the former also being required to achieve a second tier of accreditation, MCERTS. However, geotechnical testing is different in that not all laboratories are accredited.

Working Group Objectives

Two of the five objectives of the Laboratories Working group set out in the AGS Strategic Plan 2003 to 2005 focus on quality issues; the other three on commercial issues. The two quality objectives are: -

- Encourage and assist members to provide high quality, appropriate and reliable testing services.
- Promote the value of independent testing to clients and their advisors.

To achieve these objectives the working group would need to encourage the provision of quality and reliable (e.g. repeatable) geotechnical testing that can be seen to be free of commercial pressures. To provide evidence of achieving this goal independent assessment and assurance as to compliance will be required, i.e. external accreditation.

Background to Geotechnical Laboratory Accreditation

Accepting that there are a small number of independent laboratories, the majority of geotechnical laboratories are part of a ground investigation business that offers a full service to the geotechnical market. Before external accreditation, "quality" of the testing was subjective based on client experience (i.e. "word of mouth") and marketing information which is difficult to use for comparison purposes and cannot be considered to be an independent or impartial view.

Some fifteen years ago, Government departments, in particular the then Department of Transport decided to establish a "level playing field" on which to judge geotechnical laboratories. The level playing field was external accreditation which was established by insisting all geotechnical testing on their contracts must be undertaken by an accredited laboratory. The accreditation was to be undertaken by NAMAS, which was then part of the National Physics Laboratory and is now more independent of the government and renamed UKAS.

Other government departments, local government and the larger consultants followed the initiative until market perception was that to obtain "quality geotechnical testing" that would stand scrutiny post investigation, a UKAS accredited laboratory had to be used. In addition, because of the external assessment required to achieve and maintain UKAS accreditation there is a further assumption that there is a degree of independence to commercial pressures by the in-house laboratory that would not exist but for the accreditation.

Therefore the AGS must support external accreditation of Laboratories if we: -

- Accept the above rationale
- Do not wish to be seen as a champion of a lowering of quality standards for geotechnical laboratories
- Wish to support the working group objectives

The Quality Standards and Accreditation Body

There are a number of quality standards, e.g.

ISO 9000	Quality Management Systems
ISO 14001	Environmental Management Systems
ISO 17025	General Requirements for the Competence of Testing and Calibration Laboratories

The standard for laboratories is therefore ISO 17025 and UKAS is not only the sole national body in the UK recognised by government for accreditation of testing laboratories and calibration laboratories; it is also the sole national body recognised by government for accreditation of certification bodies.

It may be possible to seek alternative laboratory accreditation bodies but UKAS has become synonymous with laboratory accreditation in the UK to the point that it is quoted as the standard, e.g. "our laboratory is UKAS accredited" rather than "our laboratory is accredited to ISO 17025". This is unusual, if not unique for an accreditation body.

Whilst it is generally desirable to seek alternatives suppliers, in this case it appears that UKAS has no effective competition. The only alternative to UKAS would be to use a foreign laboratory accreditation body. However, using an overseas accreditation body might not be financially viable and could place a laboratory using it in a "second division" of testing houses.

Conclusions

It is doubtful whether an in-house quality system would gain the external recognition and acceptance to meet the two strategic quality objectives. In addition, UKAS is so synonymous with laboratory accreditation (no viable competition) it must be the accreditation organisation recommended to laboratories.

Therefore, the AGS as an organisation should encourage geotechnical laboratories to achieve accreditation by external assessment and accreditation to a recognised standard (ISO 17025) by an approved external organisation (UKAS).

AGS Policy Statement

The AGS encourages and will assist members to provide high quality, appropriate and reliable geotechnical and analytical testing services that are independent of commercial pressures by supporting external accreditation to ISO 17025. In the UK this accreditation is provided by UKAS

Mobile Plant Licences to become “Simpler, Faster, Lower-cost & Consistent”

A joint Government and Industry Task Force established towards the end of 2004 has now reached agreement on the best way to resolve problems concerned with mobile plant licensing.

The Task Force was asked to deal with three main problems:-

1. Multiple licenses operated across multiple sites
2. Inconsistency in enforcement and no single point of contact for operators.
3. Speed of applications and poor clarity of information requirements.

Under the new system a single license (to be called a Mobile Treatment Licence) will be issued for a given remediation technology. The license will be able to be utilised across multiple sites. A new 'Deployment Form' will be adopted which will identify all key data including the applicants account manager, any site specific information and a guide as to what other permits may possibly be required.

A system of EA Account Managers will be established providing improved accountability, better communication and a single point of contact for industry -

The new system is expected to have a number of beneficial effects – not least of which will be a significant reduction in the regulatory burden placed on operators – and hopefully a reduction in the cost when plant is not in use.

It is also hoped that the reduced cost and more efficient bureaucracy will encourage the development of new technologies and reduce the amount of waste going to landfill.

Application forms and guidance for the new MTL will be available from October. Existing holders of MPL should have been contacted by the EA in early June and will be sent a further letter in due course to explain what they have to do to obtain the new licence. There will be a 6 month transition period and existing licences will be valid until April 2006.

Finally, changes to the Waste Regulations which came into effect on 1 July have broadened the definition of mobile plant. Previously this only covered soil, but now covers the treatment of contaminated materials, substances and products (eg the treatment of groundwater).

For information on who to contact regarding licences call the EA National Customer Contact Centre on 0870 8506506 – or local EA offices (although they will not have information until nearer October.)

Depositing AGS Format Data with the NGDC

The National Geoscience Data Centre (NGDC) contains data gathered or generated by the British Geological Survey (BGS) as part of its national strategic mapping programme, alongside data provided by many external organisations. One of the most significant datasets is the borehole records collection, which includes borehole records deposited with the BGS under legislation relating to the following acts:

- The Mining Industry Act 1926
- The Petroleum Production Act 1934
- Water Resources Act 1991, Water Act 1945 and Water Act (Scotland)

Additionally, a large majority of borehole records are given to the NGDC on a voluntary basis by organizations within the site investigation industry. Though there is no legislation requiring them to do this, there are clear benefits, including:

- Data security (secure accommodation and back-up);
- Reduced storage costs;
- Easy identification of available data – using the BGS Internet Geoscience Data Index at www.bgs.ac.uk/geoindex ;
- Easy access to data for site-specific enquiries via: enquiries@bgs.ac.uk ;
- Improved geological maps – supporting industry, education, and the general public;
- Better decision-making, based on a more complete information base.

The major benefit to the BGS is access to modern data to help improve the geological synthesis of the country.

Until recently all borehole records were deposited in paper form. However, data are now starting to be deposited digitally in AGS format. This trend is encouraged at the NGDC, as it allows more rapid processing and use of the data. Where data are received for use within the cost-recovery, Borehole Ordering Service (www.bgs.ac.uk/boreholes/home.html), borehole logs can now be made available to industry more efficiently.

AGS format data can simply be sent to the BGS by e-mail, addressed to AGSdata@bgs.ac.uk (up to 10 MB file size). Alternatively copies of the digital files can be posted directly to the NGDC Data Collection Officer (see below for contact details).

The BGS welcomes donations of data from anywhere in Great Britain, and NGDC staff are happy to receive your information in various formats, including analogue, digital and material samples for addition to appropriate National collections.

For further advice and information on depositing data, please contact the Data Collection Officer:
geodata@bgs.ac.uk Tel. +44 (0)115 936 3021
Fax: +44 (0)115 936 3276
National Geoscience Data Centre (NGDC)
British Geological Survey, Kingsley Dunham Centre,
Keyworth, Nottingham, NG12 5GG UK

Letter to The Editor

Sir,

Richard Thomas' letter published in last month's edition of the AGS Newsletter opens up an interesting debate on how we quantify risk within our profession, especially those subsurface risks that are not readily identifiable or quantifiable. As with any potential risk, we have to address a number of questions, i.e. 1) is the risk real? 2) what are the consequences of the risk? and 3) can the risk be avoided?

Is there a real risk of encountering an Unexploded Bomb (UXB) in areas subjected to WW2 bombing raids? The answer is, despite all the implications, yes. In 1996, the then Armed Forces Minister, Nicholas Soames, released a list of 88 UXBs in the London area of which the Ministry of Defence had records. The location of many of these UXBs were not accurately recorded. In addition, there were many UXBs which went unrecorded altogether during and after the bombing raids of WW2, hence the need to carry out location specific threat assessments looking at all possible sources of information, including anecdotal. It should also be remembered that on many occasions the Luftwaffe aborted their bombing raids on prime targets resulting in indiscriminate bombing as bombs were released to conserve fuel for the journey home.

If the risk is real, how do we quantify that risk. Richard Thomas does not indicate what method he would adopt to differentiate between low, medium and high risk areas for an inherently random and erratic event. Even "low risk" means that there is some potential risk. One therefore has to assess the consequences.

WW2 bombs were designed to cause death and destruction. In recent years proof that time does not diminish a UXBs deadly has been demonstrated in Berlin, Austria and on several construction sites in Japan,. A recent tragedy only reinforces the lethal nature of aged Unexploded Ordnance (UXO), only a few months ago 3 Dutch fisherman working near the proposed London Array wind farm site in the Thames

Estuary were killed and 2 were badly injured when they hauled up a small "hand grenade like" device which exploded with tragic consequences.

If we were relatives of a victim of an explosion on a construction site, would we be comforted by the fact that the site had been the subject of a probabilistic evaluation and was considered as being "low risk". I think not. Similarly, the victims of the recent tsunami can draw little or no comfort from the fact that the seabed eruption which resulted in massive destruction was a 1 in a 1000 year event. The "low risk" of occurrence did nothing to diminish the "high risk" consequences of that occurrence.

Traditionally in geotechnics we attempt to minimise risk during the design phase, i.e. engineering out the risk. Such an approach could be adopted in the case of UXBs, i.e. the use of shallow foundations and / or utilisation of any existing foundations. This would, in most cases, be an expensive and impractical alternative. In view of the consequences of the UXB risk both during and after construction and the associated costs of designing out the risk, a well planned threat assessment and survey should be a cost effective option. As a consequence, Fugro Engineering Services Limited have developed their own cone magnetometer technology to provide site specific data upon which the UXB risk can be directly quantified.

What should concern drilling contractors and consultants alike, is the absence of useful regulatory guidance on when and where UXO risk mitigation is needed. The Dutch Government will be introducing legislation regarding UXO surveys later this year. Regulatory guidance will provide the basis for a rational approach to the UXO surveys, focussing attention on risk and consequences rather than the more emotive and subjective topics of cost and probability.

M R Horsnell
Director
Fugro Engineering Services Limited

Business Practice WG Report of Activities

IT and E-Commerce

While the WG recognises the benefits of e-commerce, the appropriateness of 'online auctions' for the geotechnical industry is questionable.

A position paper is in preparation which will recognise that electronic bidding is an acceptable procurement route when the use is appropriate, transparency is ensured and controls are in place to ensure best value not just lowest price. However these ideals are unlikely to be achieved for geotechnical work and therefore the paper will make it clear to non-technical clients why geotechnical work is unsuitable for this method of procurement

SISG Part 3 – Specification for Ground Investigation 'Yellow Book' review

In 2003, the AGS was invited by BGA to undertake the revision of the 'Yellow Book' and tenders were invited from AGS Members willing to do this work for a small monetary payment from the AGS. By the beginning of 2004, three tenders had been received and a steering group had been formed to oversee the work.

Unexpectedly, in March 2004, the BGA informed the AGS that the Site Investigation Steering Group (SISG) was to be reconvened and the AGS would be invited to tender for the revision! This effectively put the work on hold until June 2005, when the group finally met under the chairmanship of Prof. Christopher Clayton. After a delay of more than 15 months, the AGS was given the go-ahead to proceed with the revision.

One or two details (such as royalties for the AGS, and recognition for the AGS contractor undertaking the work) require to be sorted out – and it is hoped that the work will finally get underway in the second half of 2005.

Benchmarking

This has become a long drawn out saga – which is hopefully nearing an end. Over the past few months the KPI and the indicators have finally been agreed, the scoring has been finalised, and the whole schedule passed over to Roger Chandler of Keynetix to do the clever IT bits, before it is issued to Members.

Review of AGS Guidelines for Good Practice in SI

This 7 year old document is due for review and revision. It will be redrafted to sit with other AGS publications, such as the Clients' Guide to SI (available on the website), the AGS Code of Conduct for SI, the AGS Guidelines for the preparation of the Ground Report, and the AGS Guide to Combined Geotechnical and Geoenvironmental SI. It will include Safety and CDM issues and will integrate contaminated land issues. An independent consultant has been engaged to draft the document, under the direction of the WG

Clients' Guide to Desk Studies

This will join the other successful 'Client Guides' for SI and 'CDM Client Obligations in Ground Investigation Contracts'. (Both downloadable from the website.)

The WG meets four times a year under the chairmanship of Mehmet Yilmaz (Scott Wilson). New Members are always welcome!

Laboratories WG Report

Geotechnical Testing Codes

The committee recently confirmed that BS1377 is technically superior to the geotechnical testing documents being drafted by technical committee CEN/TC 341, e.g. in respect of calibration and sample preparation. Therefore, the new "European" documents are to be designated technical specifications rather than European codes which permits BS1377 to be retained as the code of practice for laboratory testing in the UK for the next two or so years.

An issue may exist in respect of testing on non UK contracts (e.g. Eire) in that the contract specification could refer to the European codes despite the fact that UK laboratories will not be accredited to these new standards.

CSCS Cards

It is disappointing to report that UKAS failed to make progress with CSCS in achieving acceptance that passing the technical competence section of the laboratory technician card should be within the UKAS accreditation framework rather than NVQ route.

The working group will continue the campaign on behalf of AGS members.

UKAS Surveillance Procedures

UKAS are changing the way they approach technical surveillance. The approach will be to focus on improvement with less emphasis on compliance. Administration procedures will change with the category 1, 2 and 3 non-compliances replaced by categories of action. In addition they propose to move into the electronic age by reducing paper production.

UKAS and MCERTS

The next briefing note to be issued by the Environmental Agency will deal with detection limits.

We are advised that, in respect of made ground and granular waste, "if the samples are submitted as part of a contaminated land investigation where the Environmental Agency is the regulatory authority, then MCERTS is required".

AGS Safety Manual – Laboratory Section

The working group is working on the new document albeit slowly as, although one member is project managing the process, it is being tackled as a group project and discussed at each meeting.

The agreed brief is that the document should provide generic advice applicable to any laboratory (geotechnical, materials and analytical) and indicate those areas which require laboratory specific treatment. Hopefully it can be used as a guide to completing an individual laboratory

AGS Hotlines

Chemical Hotline

(to answer questions about chemical safety issues) Marquis & Lord 0800 083 4610 - ask for the Chemical Hotline.

Contracts Hotline

(Free legal advice on contractual matters) Stephen Francis at Eversheds - Tel: 0207 919 0925