



Client/contractor relationships in managing health and safety on projects

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Client/contractor relationships in managing health and safety on projects

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The HSE wished to explore, when viewed from the supplier's perspective as against that of the client, whether services procured under a collaborative style contract influenced health and safety performance. It was envisaged that this perspective would ideally be provided by a single major service provider with experience in a number of different sectors.

Partnership Sourcing Limited (PSL) was commissioned to undertake the study and approached AMEC, who readily agreed to share their experience and identified six projects in different industry sectors.

The projects were evaluated through a series of face to face interviews with AMEC personnel and a representative from each client, using PSL's CRAFT relationship management programme suitably adapted to provide a specific focus on health and safety issues. PSL reviewed its assessments independently and validated its findings with three contractors operating in similar fields.

The report comprises this published main section incorporating the findings and recommendations and a set of Confidential Appendices containing all the interview data, which is available only to the HSE.

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FOREWORD

Over the past 10 years ‘outsourcing’ of services has become more and more a key strategy adopted by businesses to deal with matters they don’t see as part of their core business.

As this trend developed HSE became increasingly concerned about how this development affected risk.

Amongst health and safety practitioners, including those inside HSE, a balance of views emerged:

On one hand, there was broad agreement that for some very specialised risks, using specialised service providers such as licensed asbestos contractors is not only the safe and sensible option, sometimes the law requires it.

On the other hand there is a widely held view that increasing the number of interfaces involved in any project automatically increases the risk.

It has proved very difficult to pick out incidents where contractors were involved on clients premises from HSE’s statistics. The only inference that could be drawn from statistical analysis was that firms that were well managed in general had no problems working together.

To try to get a better picture of the health and safety implications of firms working together in various contractual relationships, HSE has previously looked at research and case studies from two perspectives, the HSE view; and the client centred view. Although this work did provide valuable information, there was still a crucial piece missing from this jigsaw - the view from a large contracting organisation’s perspective.

This study was devised to provide information to help fill that gap by investigating both the business and the health and safety issues on six projects, each in a different industry sector, through the experience of one major contractor.

PSL was commissioned in November 2004 to undertake the study. Being an independent member-based organisation covering government, the public and private sectors and academia, PSL was able to draw on its steering group to source leading edge organisations for all elements of the work. The study produced a vast amount of useful data, which has been condensed and edited into this report.

We would particularly like to express our thanks to AMEC for offering a range of interesting projects for examination and for making available the necessary personnel and resources.

Carol Grainger
Head of Branch
The Health and Safety Executive

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EXECUTIVE SUMMARY

1 BACKGROUND

One of the roles of the HSE is to provide guidance that will help organisations improve their health and safety performance. In this respect it wished to explore, when viewed from the supplier's perspective as against that of the client, whether services procured under a collaborative style contract influenced health and safety performance. It was envisaged that this perspective would ideally be provided by a single major service provider with experience in a number of different sectors.

In November 2004 PSL was commissioned to undertake this study programme which would focus on how partnering relationships underpin the application of best practice in respect to health and safety issues. Through its unique network of leading edge organisations PSL identified AMEC as a company ideally positioned to provide the required experience, whose forward thinking approach encouraged the sharing of best practice. AMEC readily agreed to participate in the study and to make available such resources as would be needed.

2 METHODOLOGY

The focus for the programme was to investigate and evaluate six separate projects being undertaken by AMEC in different industry sectors.

PSL utilised as a base for the programme its unique CRAFT relationship management programme suitably adapted to provide a specific focus on health and safety issues.

The first stage was to create a profile of each of the projects through a face to face interview with each project manager, based on PSL's structured questionnaire.

This provided the data to create a baseline for the second stage in which PSL evaluated each project in turn through a series of interviews, which addressed three tiers of the operational team. The interviews were structured around the CRAFT Relationship Enhancement and the Organisational Strength Analysis tools. These were suitably adapted to reflect the focus on health and safety issues and provide benchmarking of the individual projects and trends.

Following this, a similar series of interviews was undertaken with the respective clients to balance the responses before the interim findings were compiled.

At this stage PSL invited Cranfield School of Management, to review the interim findings in order to provide an independent assessment from an academic viewpoint.

PSL then consolidated the findings against each project and prepared a draft report for review by the partners.

In order to validate the interim findings and test the recommendations, PSL also identified and interviewed three independent contractors operating in similar fields prior to submitting the final report.

The final report comprises this main section incorporating the findings and recommendations, which is available to the general public and a set of Confidential Appendices containing all the interview transcripts and data, which is available only to the HSE.

3 RECOMMENDATIONS

3.1 Long term partnering

There was overriding support from those interviewed for the advantages of long term partnering agreements.

Quite apart from the general business benefits identified in this report, the openness, integration and sharing that are part of such arrangements do create a positive joint approach to H&S that has led to its improved performance. There was consensus across the projects that there was a better focus on H&S, not necessarily as a result of working with the individual client or contractor, but by the very act of working together on H&S issues.

The formation of collaborative contracts that foster this approach is therefore recommended. It is clear, however, that time and effort is required and it is necessary for all parties to work hard at developing a partnering culture throughout the projects or services, so wherever appropriate and possible, long term partnerships are preferred. It is essential that the parties work together as one team with agreed common goals.

One of the key messages coming out of the interviews was the importance of effective leadership. The process of changing behaviours and values to those required in a partnering culture is a deep-seated one. There will be many challenges along the way, which will test individual resolve and the strength of the relationship. At these times, in particular, strong leadership focused on the common objectives is critical to success.

Total commitment from the top must be demonstrated and reinforced at every level of management through to the workforce so that there is no doubt about the behaviour that is expected. This message must be communicated at every appropriate opportunity and must be seen to be operating in practice – action, not just words.

3.2 H&S environment

The importance of assessing H&S issues during the prequalification and tender process was stressed and it was suggested that this should form a large part of the quality element.

The study has produced clear intuitive evidence that a good H&S environment facilitates good business performance. It was certainly confirmed that bad H&S will lose contracts. In particular, Dwr Cymru Welsh Water considered that “people see now that health and safety can actually contribute to business success. It impacts on your reputation, not just financially, but the way people perceive the organisation.”

Once again the need for strong leadership, commitment by management and good communication was emphasised by all the participants. In order for the workforce to take H&S more seriously themselves, they must receive the unequivocal message that unsafe practice will not be tolerated and, most importantly, they must see that message translated into action at all times.

Attention was drawn to the need for a continuous process of education so that everyone realises they have a personal responsibility for their own safety and that of their colleagues and behave accordingly. All personnel must also have confidence that, if they have genuine H&S concerns, there is an effective mechanism for reporting, investigating and taking appropriate measures, which they are encouraged to use.

There was a strong feeling that in addition to the moral requirement for good H&S practice, there is a business benefit in that if employees believe the company cares about them, they will give more back. It is recommended that all construction and service companies take cognisance of this finding.

3.3 Planning

The study supports that overall planning for projects should start as soon as possible and this should include H&S planning. Further, the planning should be undertaken by a joint team of the client, contractor and major sub-contractors. Planning for the 50 day Huntsman shutdown commenced one year before the event took place.

Adequate time must then be allowed to plan any specific task, including the H&S implications. There was evidence that some clients were forcing urgent jobs onto the contractor leading to rushed planning and H&S risks.

3.4 Training

3.4.1 Induction

Induction training for personnel joining projects is an accepted practice. Value can be added to this training by:

- Holding a test at the end of induction training to check for understanding but also to check, with sensitivity, for literacy in reading method statements and safety notices
- Designing inductions that are relevant to the tasks or areas that will be relevant; for example different levels would be appropriate for visitors, those with access to and working on general areas of the site or those in high risk restricted areas
- Ensuring that delivery drivers and postmen, for example, are included

3.4.2 Site-specific and role-specific H&S training

The practice of using training matrices to track the training of individuals against the requirements of their role and the site is to be encouraged. The H&S needs of a transient or occasional workforce (short-term sub-contractors and labour agency personnel) require special attention and policing, particularly if they arrive en-masse for, say, week-end possessions.

At Huntsman the client drew attention to the difficulty AMEC faced with personnel they only employed for a few weeks and expressed the desire that overhaul clients get together to provide some continuity as these people went from project to project with different employers. Ideally sub-contractors and agency personnel should be given the same level of H&S training as AMEC direct personnel. It is not clear that this was always the case in the projects under review.

3.4.3 Toolbox talks

AMEC makes extensive use of toolbox talks which were held at varying frequencies depending on the changing circumstances on the project and the complexity of the activity.

At Dwr Cymru Welsh Water and Shell ONEgas, foreman and supervisors were specifically trained to deliver these talks effectively so that they became more than just a “chat with the lads”. At Huntsman senior managers from the client and AMEC delivered one of the talks each

week and elsewhere speakers included suppliers of PPE and plant and occupational health specialists. All these practices are recommended.

As well as reinforcing standard H&S messages (such as those in the safety manuals) toolbox talks should be continually updated to reflect current site issues, incidents, output from safety meetings and reports from other projects.

3.4.4 Behavioural training

The introduction by AMEC of behavioural training to understand the reasons behind and to rectify accidents from unsafe behaviour by individuals is welcomed and may well represent the next step change in H&S performance.

3.4.5 Occupational health

Likewise the introduction of Occupational Health “training” and support has been received enthusiastically by the workforce. This includes addressing occupational health issues during induction and other training and the presence of a full-time occupational health nurse on site.

It supports the overall culture towards H&S but also promotes personal welfare, personal hygiene and general health monitoring. These services, which at present are generally only provided on the largest sites, are open to everyone and are paid for by the project.

More time is lost due to industrial ill health than from accidents and in future more consideration should be given this aspect of health and safety.

3.5 Method statements

Method statements are now commonly produced for most key activities on sites, but the standards required by AMEC procedures are most impressive.

They are based on site specific risk assessments, often with input from the operatives involved, which are attached together with any permit to work requirements. They are often broken down into Construction Operations Procedures that are relevant to the particular part of the activity that the gang is undertaking.

Before work commences the requirements are explained and all those involved sign to confirm they have received the details and understood them.

These simple, but effective procedures should be put into wider practice.

3.6 H&S practices

Some of AMEC’s H&S practices are exemplary and could form the basis of national standards for construction projects and services. It is recommended that HSE consider this proposition. These practices are detailed in the Project Reviews and the Overview of Contractor Approach. They include:

- “Stop and Watch” or “Don’t Walk By” encouraging everyone to take an active role
- The “football card” scheme for dealing good and bad H&S behaviour is a good one and should be more widely used

- In common with oil and gas industry practices, new starters or occasional visitors to rigs and sites are identified through wearing green hard hats, in recognition of their vulnerability.
- Helmet stickers are issued when induction and safety training are completed
- The introduction of hazard identification drawings to ensure that residual risks are clearly communicated to the site team and the eventual maintainer
- Robust procedures to deal with interfaces as practiced, for example, at Dwr Cymru Welsh Water where signed records are maintained of plant operations personnel who have been trained at handover

With H&S promotion and awareness, care must be taken not to cause complacency through over-exposure as noted by AMEC at ONEgas.

3.7 Incident analysis

There is much to be gained from analysing incidents, including near misses and non-conformances. Along with regular and formal H&S monitoring, the information gained from this analysis can be used to prevent more serious incidents occurring. However, a reasonable balance must be maintained between the time spent in analysing what has happened and that dedicated to prevention.

As an example at Dwr Cymru Welsh Water, more manual handling injuries were found to be occurring at one point than any other. So a number of supervisors were given manual handling training to in turn train the individual operatives. As a result of that, the figures for manual handling incidents were reduced almost to zero.

Levels of reporting near-misses and non-conformances need to be improved on some of the projects, but this was recognised and was being addressed.

There was limited factual detail on the cost and time impact of near misses, minor incidents and accidents and even serious ones, although it was appreciated these would be significant. It is recommended that more research is carried out into these aspects to help demonstrate the actual cost of poor H&S to the wider industry.

3.8 Auditing

The regular auditing of H&S practices on projects is essential and should be aimed at engaging everyone in continuous improvement.

Audits are normally carried out by H&S teams from the client or contractor's Head Office or by independent organisations. However, the practice of cross auditing by other members of the Dwr Cymru Welsh Water Alliance appeared particularly effective and worthy of greater use. The recognition of extent to which an individual site shares its H&S best practice with others is innovative and valuable.

3.9 KPI's

KPI's are recommended as a performance measurement and monitoring tool. There is some evidence from these projects that this can improve project and H&S performance, but they were not considered to drive the ethos. A distinction needs to be drawn between lagging indicators such as accident frequency ratios and leading indicators such as the H&S plan which have yet to happen. Both types of indicator have their role with the former feeding into the latter.

To gain the full benefit, KPI and other target scores do need to be widely publicised to all stakeholders and there should be greater efforts in this direction.

3.10 Incentives

Personal financial incentives for good H&S performance were almost universally rejected. It was considered that recognition of exemplary individual H&S behaviour through praise or a “pat on the back” was far more effective and greatly appreciated.

Donations to charities of the workforce’s choice when H&S milestones are met prove popular and effective. The donation should be funded by the client and contractor to reflect the integrated focus on H&S and accompanied by maximum publicity.

There are schemes that reward individuals with token gifts or shopping vouchers plus a letter from the managing director. One such that is being introduced is based on their safety record. Credits are given for the hours of safe working and deducted if there are unsafe incidents. When the credits reach a certain level they are recognised as described above.

3.11 People

The relationship between the client and contractor’s senior manager on site is essential for both business and H&S success. Attention must be paid to ensuring that these two individuals can build empathy and rapport, either by having worked well together in the past or by careful selection.

In addition, consideration must be given to planning their successors against the same criteria. At Lilly the integration was such that it was felt that the next general manager of the service could either come from either company.

Several projects adopted a “best man for the job” approach. This means that the individual most suited to undertake a task or role is selected regardless of whether he is the client or contractor’s employee and regardless of history or tradition as to who has undertaken the task or role in the past. As well as providing business benefit through flexible resourcing, this practice also assists with team integration and creating a joint sense of purpose.

The co-location of client and contractor’s project teams also greatly supports integration and motivation. This should be extended to other key players such as designers and specialist sub-contractors wherever possible.

The VOICE process used by AMEC is a really effective tool for motivating the workforce and gaining their buy-in to change and is extended to include key sub-contractors. One of the interesting and effective activities that VOICE committees undertake is going to other sites to carry out hazard spotting.

Such initiatives that challenge defaulting colleagues and ensure opportunities exist for suggesting H&S improvements should be encouraged. Above all, the message that final responsibility for working safely rests with the individual must be constantly reinforced.

3.12 Culture

Reference was made by a number of interviewees to the different level of H&S culture in each industry and the commitment of AMEC to their own high standards. There ought to be more

prominence given to imparting the best of these expectations and attitudes to the less advanced sectors.

Within partnerships and indeed within any organisation or project, there is a need to establish an H&S culture, not just a set of rules. That way, H&S becomes embedded. This is fundamentally a change programme, starting at the top and requiring all the well-established practices of change management.

The workforce must be encouraged to report near-misses and non-conformances and to make positive suggestions for H&S improvements. A no-blame culture is a strong facilitator for improved H&S performance with people more likely to admit mistakes and near-misses. Whilst it is not an easy culture to establish, managements should work hard to do so with good communications and, in particular, with behaviour that reinforces the culture.

A zero tolerance policy should always be adopted for H&S. By concentrating on the minor incidents and accidents lessons are learned that will reduce and possibly eliminate the serious ones.

3.13 Learning

The corollary of “no-blame” is learning from incidents and experiences – good and bad. It would appear that more formal processes need to be devised for capturing this learning, such as the continuous improvement register at the Highways Agency and the central best practice database maintained by Huntsman through which H&S activities can be accessed either by title or when in the process they should be put in place. These processes should be made easier with the support of modern technology.

The sharing of H&S resource and knowledge between client and contractor is to be encouraged. It is the one area where there should be complete openness, no commercial sensitivities, no resource gaps and no budgetary constraints on any project.

The next stage is the dissemination of this learning across the project and to wider stakeholders. In particular, a “First Alert” system, whereby any H&S incident or issue is promptly and widely circulated across the contractor and client organisations and to the wider industry is to be encouraged. Another example is Shell Europe’s Integrated Service Contractors meetings to exchange safety related information even though they are direct competitors.

As noted above, the practice used at Dwr Cymru Welsh Water whereby H&S audit scores are dependent not only on the contractor’s performance, but the extent to which best practice has been shared with other partners is highly commendable.

Most projects depend heavily on sub-contractors and dedicated workshops, on away days if possible, to impart and obtain H&S best practice is to be encouraged.

The appointment of dedicated continuous improvement managers on large projects is also recommended.

3.14 Innovation

It was considered that innovation in design, technology and methods of construction could significantly reduce H&S risk and, subject to stringent and appropriate testing, was therefore to be encouraged.

1 INTRODUCTION

1.1 BACKGROUND

One of the roles of the HSE is to provide guidance that will help organisations improve their health and safety performance. In this respect it wished to explore, when viewed from the supplier's perspective as against that of the client, whether services procured under a collaborative style contract influenced health and safety performance. It was envisaged that this perspective would ideally be provided by a single major service provider with experience in a number of different sectors.

In November 2004 PSL was commissioned to undertake this study programme which would focus on how partnering relationships underpin the application of best practice in respect to health and safety issues. Through its unique network of leading edge organisations PSL identified AMEC as a company ideally positioned to provide the required experience, whose forward thinking approach encouraged the sharing of best practice. AMEC readily agreed to participate in the study and to make available such resources as would be needed.

1.2 AIMS

The primary aim of this study was to investigate a number of projects undertaken by a publicly recognised contractor (AMEC) and to assess the direct and indirect contribution to best practice health and safety performance through the adoption of partnering relationships and approaches.

At the same time the study would evaluate and hopefully validate the relationship between health and safety best practice through effective collaborative relationships and overall project success from the viewpoint of the contractor.

The focus for the programme, subject to agreement with the client partners was to investigate and evaluate six separate projects.

1.3 METHODOLOGY

PSL was nominated to execute this investigation on behalf of HSE based on its neutral non-competitive positioning and recognised expertise in the field of partnering and collaborative business relationships. PSL utilised as a base for the programme its unique CRAFT relationship management programme suitably adapted to provide a specific focus on health and safety issues.

The initial stage of the work was the development of an investigation framework based on the PSL CRAFT programme. This included a preliminary profile structure that was used to carry out a review with each nominated project manager based on the CRAFT value creation segment.

PSL interviewed each of the project managers (although the individual's position and title differed in each case, this generic term has been used for the most senior AMEC representative resident on site) for the nominated projects to establish a validation of the individual project performance. This provided the data to create a baseline for the further investigations. The results of this initial review enabled the partners (HSE, AMEC and PSL) to adjust, where necessary the base programme approach.

PSL evaluated each project in turn through a series of interviews, which addressed three tiers of the operational team. These included project management, supervisory and front line delivery operatives. The interviews were structured around the CRAFT Relationship Enhancement and the Organisational Strength Analysis tools. These were suitably adapted to reflect the focus on health and safety issues and provide benchmarking of the individual projects and trends.

Following this, a similar series of interviews was undertaken with the respective clients to balance the responses and findings.

At this stage PSL invited one of its steering group members, Cranfield School of Management, to review the interim findings in order to provide an independent assessment from an academic viewpoint. Their comments were incorporated in the final report and the full record of their assessment is included in Confidential Appendix 4.

PSL then consolidated the findings against each project and prepared an interim report for review by the partners prior to final submission.

In order to validate the interim findings and test the recommendations, PSL also identified and interviewed three independent contractors operating in similar fields without identifying the source of the prime information as AMEC. These peer reviews supported PSL’s findings and recommendations with one exception of emphasis, which was recognised in producing the final report. The full record of these three interviews is included in Confidential Appendix 5.

1.4 SELECTION OF PROJECTS

Following a meeting with AMEC’s Head of SHE, a number of potentially suitable projects were nominated for consideration. PSL selected six of these, representing different industry sectors, which were discussed with the HSE and accepted as providing an appropriate source of information in areas of particular interest.

AMEC approached the relevant clients to obtain their permission and agreement to participate in the study. We are most grateful that in each case the client organisation expressed great interest in the study and readily gave its approval.

These projects, the relevant clients and industry sectors were:-

Project	Client	Sector
Capital Alliance South East Team Project	Dwr Cymru Welsh Water	Utilities
North Tees Aromatics 2 Shutdown October 2004 Facilities Management	Huntsman Lilly	Petrochemical Pharmaceutical
Manchester South Capacity Improvement Scheme	Network Rail	Rail
M60 Widening - Junctions 5 to 8	Highways Agency	Construction
Integrated Service Contract	Shell ONEgas	Oil and Gas

1.5 KEY OUTPUTS

The results of the project were compiled into a two part report.

The main report:-

- Incorporates the findings of the investigations
- Identifies the key observations and trends within the projects reviewed
- Identifies specific approaches that underpin the effective application of health and safety issues.

- Highlights key areas of best practice being applied
- Provides key recommendations to broaden awareness

The second part of the report comprises the Confidential Appendices containing all the interview transcripts and data, which is available only to the HSE.

2 FORMAT OF THE QUESTIONNAIRES

2.1 PROJECT PROFILE

The questionnaire was designed to produce a background to each of the projects through interviews with AMEC's relevant project manager and to highlight areas that might need amending in the draft Project Review questionnaire.

A large amount of information was elicited during these interviews, much of which was subsequently incorporated in the Project Review section of this report.

The questionnaire was divided into three sections:-

2.1.1 Basic data

Some basic project information such as:-

- Title
- Value
- Description
- Contact details

2.1.2 Major challenges

- General project challenges with success rated from A (high) to F (low)
- Health and Safety impacts

2.1.3 Structured questions

Six sections covering:-

- Cost
- Programme/planning
- Processes/procedures/methods
- Resources
- Specifications
- Performance

These sections contained a total of over sixty statements, each of which required completion of a "yes/no" box leading to more detailed discussion.

The questionnaire is reproduced in Appendix 1.

2.2 PROJECT REVIEW

This questionnaire was used in the interviews with both AMEC personnel and the relevant client representative. The format was similar for both AMEC and client, but with the organisation's name transposed, except in a few appropriate instances where in each questionnaire the subject was AMEC.

The questionnaire was divided into six sections covering:-

1. The business relationship
2. How we work together
3. Adding value

4. People working in the partnership
5. Innovation and change
6. My organisation

These sections contained a total of forty statements, each of which required completion of a "tick box" numbered from "1 to 6" or "not applicable" where "1" represented "I strongly disagree" rising through stages to "6" representing "I strongly agree". Broadly, the statements in the first half of each section related to the relationship in general and the remainder were aimed specifically at the health and safety aspects.

Once again the process of scoring the statements in each section was followed by detailed discussion eliciting the views of the interviewee.

The questionnaire is reproduced in Appendix 2.

3 THE INTERVIEWS

3.1 SELECTION OF INTERVIEWEES

The project manager identified two (in one case three) other members of AMEC's staff representing different levels of responsibility on the site who, in addition to himself would provide a range of views on the relationship.

He also sought and obtained the cooperation of the client's senior representative on site in providing their perspective of this relationship.

3.2 CONDUCT OF THE INTERVIEWS

3.2.1 Project Profiles

The individual interviews lasted on average about one and a half hours.

Project managers provided basic contract information and went on to identify the main challenges both from a general and health and safety perspective. The yes/no answers to the questions in the six following sections prompted detailed discussion on the background in each case. This was used in compiling the profiles for each of the projects, but a significant amount of information provided material for the reviews.

The six complete interview transcripts are contained in Confidential Appendix 1.

3.2.2 Project Reviews

The individual interviews lasted on average about one and a half hours. The completion of the simple "tick box" questionnaire was followed up after each section, by discussion on the reasons behind the scoring and any additional comments.

The scoring system was designed to act as a prompt for discussion by forcing people to think about why they gave the marks they did. The resulting scores may be used as a general indication of trends, but the limited sample was always considered to be too small for any significant statistical analysis.

Discussion took place immediately after the marking of each section, before going on to the next, to elicit relevant comments based on actual experience. At the outset it was acknowledged and expected that there would inevitably be some variation in the views expressed, but within the number of responses it was possible to detect general trends and concerns.

With the permission of their organisations to participate in this study, the interviewees were able to express their views freely and openly, resulting in occasionally forthright statements. We have not attempted to change any of the comments in the Confidential Appendix, nor have we been able to verify their validity as this was outside the scope of this study, but we have incorporated the essence of these views in the main report.

The 25 complete interview transcripts are contained in Confidential Appendix 2, but some of the comments are occasionally quoted in the text of this report. The consolidated tables of the scores are reproduced, with additional charts reflecting the scores, in Confidential Appendix 3.

4 PROJECT PROFILES

4.1 DWR CYMRU WELSH WATER

4.1.1 Basic information

Title	Capital Alliance South East Team Project	
Client	Dwr Cymru Welsh Water	
AMEC Company	AMEC Construction Services	
Value	c. £150 million to AMEC from 2000 - 2005 c. £170 - 180 million from 2005 - 2010	
Contract	NEC Option C - target cost with pain/gain shared with Alliance partners	
Mobilised	February 2000	
Start date	April 2000 AMP 3	April 2005 AMP 4
Duration	5 years	10 years
Personnel	150 (peak 200) staff and operatives plus subcontractors	

4.1.2 Background

Glas Cymru is a single purpose company formed to own, finance and manage Dwr Cymru Welsh Water. It is a company limited by guarantee and because it has no shareholders any financial surpluses are retained for the benefit of Dwr Cymru Welsh Water's customers. Dwr Cymru Welsh Water is the regulated company that provides water supply and sewerage services to over three million people living and working in Wales and some adjoining areas of England.

Dwr Cymru Welsh Water set up a strategic partnering programme to deliver capital works improvements to their assets, split into three geographical areas for the waste water side and just one for clean water. AMEC's South East Team covers Dwr Cymru Welsh Water assets in South East Wales.

The success within the strategic alliance during the 5 year AMP3 period has led to AMEC securing a further ten-year partnering alliance (AMP4) to provide life of asset solutions including project management, design and construction together with land and highways management and public relations. During this period AMEC will continue to deliver the capital programme, but will also become more involved in the operational management.

4.1.3 Project challenges

- The delivery of a very tight programme of outputs within stringent regulatory and environmental regimes and with minimal impact on the public (highways, railways, public areas etc)
- Maintaining quality, although over the 5 years there have been no incidents in terms of quality management
- Gaining land entry: in the early years of the programme, the Foot and Mouth epidemic caused considerable access problems

4.1.4 Health and safety challenges

- Confined space working within live sewers
- Highway and railway working with live traffic

- Working in deep excavations – poor ground conditions and old mine workings with potential for methane release
- Emergency discharges

4.2 HUNTSMAN

4.2.1 Basic information

Title	North Tees Aromatics 2 Shutdown October 2004
Client	Huntsman
AMEC Company	AMEC Industrial
Value	£5.2m
Contract	Target cost incentivised
Mobilised	September 2003
Start date	October 2004
Duration	50 days
Personnel	150 Huntsman and 550 AMEC at peak

4.2.2 Background

Huntsman's Aromatic 2 facility on Teesside provides chemicals to go downstream to their other manufacturing facilities. This project comprised a major overhaul of the plant, including preparation and execution of the contract.

Slow feed planning and preparation commenced with initial mobilisation in September 2003 with progressive uplift in management through to commencement in October 2004. There was an integrated AMEC / Huntsman management team approach with appropriate engagement of personnel from both companies.

The disciplines covered included:- management of all EHS preparation activities for the event; logistics planning to accommodate 550-peak man workforce; planning and scheduling of the 830 job worklist; material management, procurement and expediting of associated materials; the procurement and management of approximately 60 subcontract activities; development of quality plans and packages; and hand over and completion activities to the required unit delivery dates.

Huntsman placed all warranty-based contracts (e.g. valve overhauls) and AMEC placed all other contracts.

Traditionally incentivisation would be based around 4 Key Performance Indicators – safety, duration, quality and commercial. As the working relationship has developed with Huntsman they no longer see it necessary to incentivise AMEC against safety as they believe this is a given with them.

The responsibility for plant clean-up lies with the client; AMEC supports them in the operation, but are issued with a permit to work on that basis.

4.2.3 Project challenges

- Highest level of attainment in culture and safety performance otherwise Huntsman will not engage AMEC for future business
- Out turn cost

- Duration – 50 day window
- Maintaining quality of construction with no leaks
- Sourcing and maintaining the right resources

4.2.4 Health and safety challenges

- The predominant challenge is the environment and the environmental cleaning up of the plant
- Chemical plant hazards; e.g. asbestos, but everything within a chemical plant is an issue as regards to hazards

4.3 LILLY

4.3.1 Basic information

Title	Facilities Management
Client	Lilly
AMEC Company	AMEC Building and Facilities
Value	Progressively increased from £100k on one site Currently £14m per annum on facilities plus additional projects
Contract	Target cost incentivised
Mobilised	1999
Start date	1999
Duration	Progressive extension to 2008; option of further 2 years
Personnel	120 and growing

4.3.2 Background

AMEC provides an integrated Facilities Management role for Eli Lilly & Co (Lilly), one of the world's leading pharmaceutical businesses. It comprises a full range of services, with management of all hard and soft facilities services across the UK portfolio and self-delivery of hard services. This includes management of over 100 sub-contracted suppliers and services such as: fabric maintenance, pest control, laundry, cleaning, catering, vending, grounds maintenance, janitorial services, engineering operations and maintenance, portorage, help desk, waste management and lab support.

The sites are manned by full-time qualified technicians operating from on-site workshop facilities, together with services supplied by specialist external suppliers and sub-contractors. The AMEC team responds to all help-desk calls and site emergencies 24 hours per day, seven days a week, including services such as snow and ice clearance during bad weather. The AMEC staff work closely with the Lilly Engineering team to provide a combined one-stop shop service to the end users.

The work covers all four UK sites:

- 160,000 sq. ft. Head Office and EMEA Data Centre in Basingstoke
- 400,000 sq. ft. Dry Products Manufacturing and Packaging site in Basingstoke
- 50 acre Research & Development facility in Surrey
- The manufacturing site at Speke on Merseyside

EHS culture and capability was one of the deciding factors in being awarded the FM contract for the Speke site last year.

4.3.3 Project challenges

- Lilly has fixed budgets, so managing the facilities within strict financial control
- Instituting a massive programme of good quality assessments in terms of risk assessment, method statements, COSHH assessments and data sheets to ensure compliancy in those areas
- Delivering the operation in terms of productivity on which they are measured
- Ensuring that people are motivated and remain competent to undertake their role
- Continually meeting the client's expectations and adding value in a very competitive industry
- Ensuring that the Data Centre at Lilly House, which supports the whole of Europe is operating at all times
- Working in a highly regulated Good Manufacturing Practices (GMP) environment
- Increasing turnover year on year to improve the growth of the business
- Extending work into capital projects to design and build new laboratories
- Each of the four Lilly sites in the UK reports to a different element of the corporate business, so AMEC considers it is like working for four quite separate companies

4.3.4 Health and safety challenges

- Key EHS challenges differ with each site, but include, chemicals, gases, various categories of waste and radio-activity
- Working in the laboratories
- Developing improved EHS awareness and compliance across a range of suppliers and on site.
- Bringing some of Lilly's small suppliers, who are the only people capable of maintaining certain old equipment, up to the required levels of safety

4.4 NETWORK RAIL

4.4.1 Basic information

Title	Manchester South Capacity Improvement Scheme
Client	Network Rail
AMEC Company	AMEC Spie Rail
Value	Approximately £500m to date
Contract	RT24 CONTRACT (target cost incentivised) when Alliance: moving to fixed price lump sum lowest competitive bid
Mobilised	Small team working for a year before start on site
Start date	1998
Duration	Forecast work until 2006, possibly 2007
Personnel	Peaked at 1000 operatives during nine week summer blockade

4.4.2 Background

As part of the West Coast Main Line Capacity Improvement and to enable Virgin trains to run to Manchester at 125 mph, Railtrack needed to upgrade the railway infrastructure south of Manchester. The scheme was to include Permanent Way, new state of the art (computer based interlocking) signalling, overhead line replacement and associated civil engineering and electrical works. This original scheme was valued at approximately £150M and was to be delivered by an Alliance consisting of AMEC Spie, Ansaldo and Railtrack.

The first phases of the scheme proceeded well on site, but the Safety Case approval for the new computer interlocking was severely delayed. This failure to secure the contract programme caused Railtrack to pull out of the Alliance and take a more traditional client role. Atkins, who were responsible for the safety case, joined the “Route 7 Alliance” (referred to in this report as the Alliance), which then undertook a whole series of works between Crewe and Manchester.

Network Rail (which succeeded Railtrack as the client) felt that the alliance way of working was not offering value for money, costs were spiralling and that they were not in control. As a result, they changed their procurement method at the end of 2004 to more traditional contracting arrangements, inviting contractors to bid for packages of work.

The works have been carried out under railway rules and regulations, including night time possessions, weekend possessions and total blockades, throughout which AMEC Spie has been the Principal Contractor.

4.4.3 Project challenges

- The introduction of new technology into the rail industry, such as the computer based interlocking signalling system
- Undertaking major track and railway infrastructure renewals in blockades
- The EPS (Enhanced Permissible Speed) works, which is 125 mph running
- Flexibility to meet a changing work programme with the need to be manned up
- Issues surrounding the availability of competent people to work on the railway

4.4.4 Health and safety challenges

- Attitude, culture and traditions of the Rail industry
- Transient workforce (largely from agencies) having to be boosted for possession working
- The railway environment is inherently dangerous – from a simple access point of view you have to walk along areas which are designed for trains to run, with very few places that are really safe
- Pressures to complete jobs of work within the possession timeframe
- Training and development of individuals in key competencies
- Achieving set health and safety targets

4.5 HIGHWAYS AGENCY

4.5.1 Basic information

Title	M60 Widening - Junctions 5 to 8
Client	Highways Agency
AMEC Company	AMEC Construction Services (JV with Alfred McAlpine)
Value	£180m
Contract	NEC Option C (target cost incentivised)
Mobilised	March 2003 start of design
Start date	On site August 2003
Duration	Original completion March 2006, extended to July 2006
Personnel	80 staff and 200 JV operatives, plus up to 250 subcontractors

4.5.2 Background

A Design and Build contract awarded by the Highways Agency (HA) to a joint venture of AMEC and Alfred McAlpine in April 2003 to widen the M60 between junctions 5 and 8. The scheme involves the demolition and reconstruction of several bridges, additional lanes, a new parallel collector distributor road, new horizontal and vertical alignments at various junctions and building new landscape mounds and noise barriers.

The Highways Agency's Representative is Mouchel Parkman and other stakeholders include the local Councils, EA, HMRI and the HSE. The Joint Venture (JV) is using Halcrow as consultants on a profit share arrangement.

The contract has been executed utilising an informal partnering approach that has been extremely successful leading to a number of value engineering exercises that have resulted in risk reduction and cost savings. A number of workshops have been held throughout the scheme to highlight strengths and weaknesses and also to improve systems.

4.5.3 Project challenges

- Traffic management on this particular project is the most significant challenge
- Value engineering innovation
- Public relations management
- Developing cooperative working relationships with the council and other stakeholders

4.5.4 Health and safety challenges

- Implications of 100,000 vehicles passing through the site each day
- Working at heights
- Very congested site with added potential for incidents between labour and plant
- Occupational Health becoming an issue, e.g. HAVS

4.6 SHELL ONEGAS

4.6.1 Basic information

Title	Integrated Service Contract
Client	Shell ONEgas
AMEC Company	AMEC in JV with Jacobs and Stork (AJS)
Value	In excess of £500m (£210m to AMEC)
Contract	Performance contract based on KPIs
Mobilised	July 2003
Start date	January 2004
Duration	7 year contract with ongoing options possible to 15, 20 or 25 years depending on performance
Personnel	1200 in total

4.6.2 Background

Support services to Shell and NAM's (Nederlandse Aardolie Maatschappij B.V. is a 50-50 joint venture between Shell and Exxon in The Netherlands, with Shell as operator) facilities in the UK and the Dutch sectors of the southern North Sea. The contract was awarded to a Joint Venture (AJS) of AMEC, Jacobs Engineering and Stork Industry Services and covers 53

offshore platforms and 2 onshore gas reception terminals at Bacton in the UK and Den Helder in the Netherlands. AJS - employs about 500 people on-shore at Assen and Great Yarmouth and about 600 offshore. On-shore covers support, design, engineering and planning. They are co-located with client at Assen and the client is fully involved in planning processes.

It covers the full spectrum of services from maintenance, engineering, construction and all project management support services such as cost, planning and supply chain management, all of which support the client's business.

The contract focuses upon a number of key themes, perhaps the 2 most important being:- a single integrated delivery team made up of both contractor and operator staff sharing equal status, authority and empowerment; and the only source of contractor return being driven through Key Performance Indicators measured on an integrated scorecard - some 12 items measured including H&S (25% of total), technical integrity, time, cost management (25%), delivery of the plan, business improvements and customer satisfaction. Net costs are paid and a profit (+12%) or loss (-2.4%) margin based on performance.

4.6.3 Project challenges

- Setting up a separate company
- Transition from the old to the new - at the outset the individual organisations were new (AJS and ONEgas) and eighteen months on the partnership is still forming
- There are many cultures - English, Dutch, 3 different contractors, Dutch ONEgas, UK ONEgas, Off-shore, On-shore
- Big increase in workload this year
- Shortage of off-shore technicians – and getting worse
- Some platforms are un-manned and access to some facilities for maintenance is very difficult

4.6.4 Health and safety challenges

- Transient workforce makes it difficult to establish H&S culture
- In the UK sector, because safety is such a major conversation point with a degree of overkill, apathy is creeping into the offshore workforce
- Expectations are very high following Piper Alpha disaster and because of under-maintenance in the past
- Hostile working environment offshore

5 PROJECT REVIEWS

This section identifies evidence that supports the main overall research findings from the six projects involving:

- Dwr Cymru Welsh Water - Capital Alliance South East Team Project
- Huntsman - North Tees Aromatics 2 Shutdown October 2004
- Lilly - Facilities Management
- Network Rail - Manchester South Capacity Improvement Scheme
- Highways Agency - M60 Widening, Junctions 5 to 8
- Shell ONEgas - Integrated Service Contract

Within each client the sub-sections are divided against the six main headings used in the questionnaire, which are:

- Business Relationship
- How We Work Together
- Adding Value
- People Working in the Partnership
- Innovation and Change
- My Organisation

Within these six main headings, the data is presented by:

- General business/partnering practice
- H&S practice

The evidence arises from comments made by interviewees during their completion of the questionnaires. In some instances, they have been paraphrased, particularly where a number of interviewees have made the same or similar comments. In other cases, direct quotations have been included where they strongly highlight a specific issue.

For the sake of clarity, comments are attributed to either AMEC or the Client (e.g. Huntsman) rather than to individuals. It is of course recognised that these views are those of individuals on the projects and do not necessarily represent the position of their organisation as a whole.

5.1 DWR CYMRU WELSH WATER

5.1.1 Business Relationship

General business/partnering practice

A joint mission statement for the programme was developed by Dwr Cymru Welsh Water and AMEC.

AMEC created a single “virtual design house” from 5 design companies. They met monthly to allocate work across the teams best suited to do it. That way they had access to a far wider range of design resources. One design resulted in a project due to cost £25M actually costing £13M.

Dwr Cymru Welsh Water is a company “limited by guarantee” that engages partners with the expertise to deliver the different parts of the business. They spend a lot of time (3 months) checking that potential partners have appropriate standards, processes and management systems

in place and when appointed, allow them to work, with periodic audits. They do not want to tell partners how to run their businesses. This applies to H&S in particular.

With long term contracts now in place AMEC can now plan more effectively – including for H&S. “Now the contract is long term, we can put the investment and commitment into it because we haven’t got to make a profit at the end of four years then get out”. AMEC quote.

There is sharing of financial and other information because it is an open-book contract with incentives for pain and gain.

Dwr Cymru Welsh Water were impressed that AMEC will say no to business opportunities if they do not believe it is in Dwr Cymru Welsh Water’s interests to proceed. This has enhanced Dwr Cymru Welsh Water’s trust of AMEC. They consider that many other companies would just grab every opportunity going.

Dwr Cymru Welsh Water has run facilitated partnering workshops for the Alliance to promote partnering and trust. “When we had client/contractor relationships in the past we’d both be out to screw each other and you would be trying to claim as much as possible. That’s all gone with the partnering arrangement” Dwr Cymru Welsh Water quote

H&S practice

Safety is never compromised because of cost and business decisions are based on the best value - not because they are cheapest. The programme has adequate provision for safety equipment and training. The majority of AMEC managers have IOSH qualifications. “AMEC give their people some of the best PPE and tools available.” “From H&S viewpoint, they have gone the extra mile” Dwr Cymru Welsh Water quotes

All parties were pleased with H&S performance – the site won the Managing Director's Award last year for health and safety. The project had worked over a million hours without a reportable accident and very few minor accidents, but AMEC feel that they will not be entirely satisfied until there are no accidents or incidents.

H&S trends are identified and given particular attention. For example, more manual handling injuries were occurring at one point than anything else. So a number of supervisors were given manual handling training to in turn train the individual operatives. As a result of that, the figures for manual handling incidents were reduced almost to zero.

The emphasis is on prevention of accidents in the future, rather than concentrating on the record of those that have occurred.

5.1.2 How We Work Together

General business/partnering practice

Dwr Cymru Welsh Water was involved with project planning and their people are co-located with AMEC staff.

AMEC operate a peer review before any design goes live. They bring in designers from other areas and operational staff to critique designs and, in particular, to design out H&S risks.

Dwr Cymru Welsh Water ran a road show for AMEC and Alliance staff to promote the project, to thank them for what they had done and to keep them informed about future developments.

Problem solving workshops are held if there are issues between Dwr Cymru Welsh Water, AMEC and partners. Very few disputes though. Everyone tries hard to find a solution. If all else fails, Dwr Cymru Welsh Water has a “step-in” arrangement in the contract if organisations are not cooperating or fulfilling their obligations. It has never been used.

KPI's are widely publicised throughout with bulletins, newsletters and web sites but are not felt to drive the ethos of the project.

H&S practice

Dwr Cymru Welsh Water and AMEC agree annual safety targets in the form of a road map. Performance is monitored monthly against the road map covering any accident, incident, ill-health or near-miss on the programme. Monthly reports go to Dwr Cymru Welsh Water and AMEC boards. Sharing in H&S success is seen as a strong motivator.

Method statements define what a task is, the competency levels required and permits needed. There are also cross checks so that only certain people within their skills base are authorised to sign permits. For confined space operations, permits name actual people working on the job. AMEC run courses for writing method statements and risk assessments.

No work will start on a task without everybody being signed up to the method statement, risk assessment and task-specific induction.

Some method statements are too large and complex and so are broken down into Construction Operation Procedures (COPs). Specialist sub-contractors write their own method statements to AMEC standards e.g. specialist craneage.

All accidents, incidents, ill-health, hazards and near-misses are analysed promptly and safety notes issued by e-mail to all partners. AMEC also forward these to the rest of their organisation and to the wider industry. These are known as “First-Alerts” and are part of the continuous improvement programme.

The Alliance works hard at the design stage to reduce the requirement for people working in deep trenches, live sewers and confined spaces. Remote-controlled technology is used where possible.

A job can take longer because of H&S considerations but that is regarded as a necessary part of the job.

Individuals may be excellent at their own H&S procedures but often the interface between people may not be covered. AMEC work hard at addressing the interfaces, e.g. there are strict handover procedures to ensure that the plant is handed over only to operators who have attended appropriate training (supported by training records).

It is agreed that AMEC is the driving force behind H&S on the programme. AMEC believes that their task is easier because, with local labour assured of a reasonably long term future, they do not have the itinerant workforce that many other projects face.

5.1.3 Adding Value

General business/partnering practice

AMEC's management system for traditional construction projects wasn't appropriate in this partnering environment. So they developed a Project Execution Programme. They tested its robustness by inviting BSI to review it. A key feature is a document that clearly defines roles and responsibilities, which is visible to everybody. This plan may be adopted by Dwr Cymru Welsh Water as a model to be used across all their business. The AMEC Utilities Division in conjunction with one of their partners, National Grid Transco is also considering its adoption.

AMEC's has an initiative called VOICE (Views of Operatives in the Construction Environment) for operatives to air their views and concerns, which has been extended to include Tier 1 partners and subcontractors. A recent example of introducing new eye and hand protection came with the active involvement of VOICE, which made operatives feel part of the process and which they embraced fully. The VOICE committees go to other sites and carry out hazard spotting.

H&S practice

H&S peer or cross audits; this is a unique process set up by Dwr Cymru Welsh Water. AMEC, for example, will be audited every 3 months by a team of 3 consisting of H&S managers from Dwr Cymru Welsh Water, AMEC and one of the Alliance companies. They use a standard audit and award scores. A site can only maintain or improve its score next time if it can show that it has shared its best practice across the programme and if it has improved even more since the last audit - otherwise it drops. This avoids competition to achieve the best score. Results of audits are widely published.

“The improvement year on year in H&S would not have been achievable without sharing knowledge and the partnering arrangements. This is the best partnership I have seen”. Dwr Cymru Welsh Water quote.

5.1.4 People Working in the Partnership

General business/partnering practice

The climate of the programme is to encourage people to admit their mistakes because they are learning opportunities for everybody. However, AMEC feel that a no-blame culture can lead to complacency and therefore they like to instil a culture of “responsibility” rather than “no-blame”.

Although people work for AMEC or a partner, they feel as though they are seconded to a virtual organisation (the Alliance).

H&S practice

Everybody starts with an AMEC capital projects induction, following which they get a hard hat to wear. Then, arriving at Programme HQ on a Monday morning, they have their main induction (4 hours) covering “how we work”, culture, generic H&S risks, personal hygiene and environmental risks. They are tested at the end of it to ensure they have understood and to identify any cases of illiteracy. Registers are kept and Dwr Cymru Welsh Water audits the process.

Then, there is specific site induction at their place of work – again everyone. There is also a visitor induction at sites for every visitor – things change quickly! Even delivery drivers and the postmen have to undertake the basic induction course or they are not allowed on site. One of the few incidents involved an agency relief driver.

There is an extensive programme of daily briefings or toolbox talks. These talks cover generics from the AMEC safety manual, include safety notes and near misses and are updated regularly. Alliance foremen are trained to deliver the toolbox talks. “It is one thing understanding but another passing the message on.” AMEC also use external suppliers, e.g. of PPE, to give talks.

Sub-contractors are given identical training.

Training records are kept, in particular for H&S, for everybody working on the programme. This is important as they are spread over a large area. Everybody is tracked and set individual targets for training. For example, everyone must have a confined space toolbox talk at least once per month.

Dwr Cymru Welsh Water will not allow anybody to work in confined spaces without a recognised confined space qualification e.g. NVQ or C&G. Dwr Cymru Welsh Water will fund the training if necessary.

AMEC has recently introduced behavioural training in relation to H&S. You can have good procedures, trained people, PPE, method statements, risk assessments and there are still accidents from unsafe behaviour by individuals.

There is scope for initiative and encouragement in H&S in bringing forward ideas, suggestions, reporting near misses and challenging non-conformance, but all H&S procedures are rigid and must be adhered to.

Operatives are encouraged to report near misses in an attempt to identify preventative action. Both Dwr Cymru Welsh Water and AMEC have a zero tolerance policy, on accidents and incidents.

There is also a process of safety concern whereby in each cabin there are forms, which operatives can complete if they are unhappy about anything – anonymously if necessary.

All agree that personal incentives are not appropriate to encourage good H&S. AMEC has looked at this periodically. “I don’t think health and safety should be something that people should be persuaded, financially rewarded or otherwise in order to do it. It’s something that should be done as a matter of course. Praise is better.” - AMEC quote.

5.1.5 Innovation and Change

General business/partnering practice

Change is one of the big stresses. When people are stressed they under-perform and take risks. Both sides are emphatic that change follows consultation and is communicated effectively so that people buy into it. The communication is as important as the change itself. Dwr Cymru Welsh Water thinks it is done well on the programme.

H&S practice

AMEC engaged the services of an occupational health company who have put a full-time occupational health nurse on site. They support the overall culture towards H&S but also promote personal welfare, personal hygiene and general health monitoring. These services are open to everyone on the site and are paid for by the project. It had quite an impact because the operatives were not used to an employer worrying about their health. This process is now used on other AMEC sites.

Alliance innovation has included the use of pre-cast chambers without step irons to ensure that people cannot go into confined spaces without having the special access and safety equipment and they therefore must follow the appropriate procedures.

5.1.6 My Organisation

General business/partnering practice

Because of the partnership Dwr Cymru Welsh Water has improved its service to customers. The number of flooding and complaints have gone down and performance up. Dwr Cymru Welsh Water was 3rd from bottom in the water company league tables and is now top. In this and other areas, “ordinary companies are doing extra-ordinary things” –Dwr Cymru Welsh Water quote.

AMEC has learned things from the partnership in terms of developing relationships and partnering. They share that learning across AMEC through articles in company magazines and presentations to other parts of the business on how they can benefit through partnering. There was a view that this learning process could be improved.

Land procedures were traditionally in the client’s scope, but a guidance document jointly developed on the project is now used across the Dwr Cymru Welsh Water business.

In addition, our Project Execution Programme is being considered by Dwr Cymru Welsh Water and AMEC Utilities as noted above.

AMEC employs two liaison officers to ensure they are able to deal quickly and effectively with the public.

“Working with AMEC is good for Dwr Cymru Welsh Water. They have brought innovation, skill, competencies and management systems to bear, not only to Dwr Cymru Welsh Water but to other organisations” - Dwr Cymru Welsh Water quote.

AMEC and the Alliance partners have been able to share staff and equipment on other projects when there have been peaks and troughs in the workload. “We had a period where our projects had a bit of a lull in the programme, whereas down in the southwest they had a bit of a peak. So we temporarily transferred people and they were working for a completely different company, but it was within the Alliance. It would never happen otherwise.”

H&S practice

Both organisations feel they have improved their H&S approach as a result of working in partnership. “We have made more progress working together than we could on our own” - Dwr Cymru Welsh Water quote regarding H&S.

The occupational health initiative was developed on this project and is being spread through other parts of the AMEC Group.

Dwr Cymru Welsh Water considered that “people see now that health and safety can actually contribute to business success. It impacts on your reputation, not just financially, but the way people perceive the organisation.”

5.2 HUNTSMAN

5.2.1 Business Relationship

General Business/partnering practice

Huntsman and AMEC had joint values for the project: “to time, within budget, no leaks and nobody hurt”.

AMEC has done major shut-down work for Huntsman before (at least 3 times in past 4 years) and a strong relationship has built up between the organisations and the individuals. “Companies contract but people do the work.” - Huntsman quote.

AMEC uses proven sub-contractors with whom it has good relationships and who have a like-minded H&S approach.

There is also a lot of emphasis from AMEC in getting its same staff and sub-contractor staff working on this project as on previous Huntsman projects, to provide consistency and continuity.

The success of the shutdown projects that AMEC has conducted for Huntsman has led to Huntsman putting in place a framework agreement with AMEC which will give them all the shutdown projects until 2009. This has tremendous benefits for both organisations. e.g. project planning can start in good time, AMEC can sign up their preferred sub-contractors and allocate key employees in good time (in an environment of resource shortage), both organisations can plan to use time between events well, management teams will not as big because there is a reduced learning curve and continuity in the use of outside staff enables better fee rates to be obtained.

The framework includes a “principle of operation” document describing how the two organisations will work together.

H&S practice

The culture of the industry was considered to be second to none, “I was in the oil and gas industry and although I thought we had a high level of safety awareness, my eyes were opened wide when I came into this industry” – AMEC quote.

The H&S focus was driven by the AMEC culture rather than Huntsman’s requirements and Huntsman were happy with this approach. AMEC’s H&S culture and record were key factors in them gaining the business.

5.2.2 How We Work Together

General business/partnering practice

An integrated management team of Huntsman, AMEC and major sub-contractor management was formed.

One year was spent in the joint planning process for the shut-down, covering procedures, risk assessments and the individual jobs (800 of them). Huntsman, AMEC and major sub-contractors were all involved. “Jobs are well prepared via detailed accurate planning” - Huntsman quote. The target was agreed 6 month prior to the event to allow the team to concentrate on cost reduction and event delivery.

The key teams were co-located and the senior operational manager from Huntsman and from AMEC shared an office and one phone line! These two individuals have worked together on the previous 3 Huntsman shutdowns and built up a close working relationship.

There is complete open book accounting on the project and sharing of project information. “Most open project I have worked on.” AMEC quote. “I think they are open and honest and I do not think they are trying to pull one over on us.” - Huntsman quote. All parties attend the same cost meetings and if an appropriate AMEC person is not around the client can authorise urgent material procurement.

Sharing of resources between the two companies: irrespective of history and tradition as to who should do a particular job, on a contract like this the best man or team for the job was chosen, whether Huntsman or AMEC. E.g. Huntsman’s H&S manager was utilised in running the plant and so AMEC’s H&S manager did most of the preparation for Huntsman people.

AMEC and Huntsman management went on a regular “walkabout” to gain additional feedback from staff.

H&S practice

The safety plan was produced as part of the overall planning process i.e. it started one year out involving client, principal sub-contractors and AMEC. The safety plan was encapsulated in a “Safe Systems at Work” document.

The plan was driven by a project H&S policy statement, the vision of which was “zero harm to people and the environment”. The accent is on looking forward to learn and prevent accidents rather than finding fault and scapegoats.

The H&S processes used on the shut-down largely came from AMEC. There is, for example, Stop and Watch where an activity is observed and then the person asked what he feels about what he was doing right or wrong and could there be any improvements. There are a number of tick boxes and space for comments and the information is fed back for discussion at the safety meetings, to see where improvements can be made.

Supervisors met at end of each shift to review H&S issues and the output went to daily safety meeting (see below).

During the shut-down there was a full-time safety team of 6 people - a mixture of Huntsman, AMEC and sub-contractor people. This team met daily at 12.00 with the project’s management

to review H&S experiences from previous day. Output from this meeting was fed into a daily H&S newsletter and next morning's toolbox talks.

There was a robust process of Permits to Work, Risk Assessments and tick-sheets (blue cards) etc, before a particular job could be started.

There was also a process of conducting audits during the shut-down against near-misses and non-conformances. 300 of these were carried out and in addition there were 3 major H&S audits during the course of the project.

A good culture was established on the project of reporting near-misses and non-conformances, even down to somebody not wearing gloves.

“Huntsman do not need to incentivise us on H&S issues – they believe it is a given with AMEC” - AMEC quote.

Despite excellent H&S performance on the project, there is still an attitude from both companies that “we can do better”. The major area for improvement was down to individuals' actual behaviour – or in other words, people doing what they have been taught.

5.2.3 Adding Value

General business/partnering practice

KPI's were used by Huntsman throughout the project in areas of cost, time, safety and quality, but were not the driving force behind the project and were not used to incentivise AMEC (positively or negatively). From AMEC's point of view, meeting the client's requirements drove the project.

Huntsman maintains a set of best practice databases. “Everything the project does, which we think is good, we keep and we put into either an events database or into our methodology database” - Huntsman quote.

Huntsman acknowledges that AMEC has greater buying power and the key competencies required for sourcing materials. As a result AMEC's purchasing system was used for the project and AMEC managed many of Huntsman's existing supply contracts.

It is intended that when the opportunity arises, Huntsman's personnel will be seconded to work for AMEC on other clients' sites to gain shutdown experience, as part of a continuous learning process.

H&S practice

All AMEC Petrochemical sites share H&S incident information with each other and their clients for learning purposes. Huntsman has even passed this information to its US parent company, where it has been very well received.

AMEC take their sub-contractor's management for away-day workshops with a strong emphasis on H&S.

There was a strong feeling that in addition to the moral requirement for good H&S practice, there is a business benefit in that if employees believe the company cares about them, they will give more back.

5.2.4 People Working in the Partnership

General business/partnering practice

There was a strong “no-blame” culture on the project, with incidents being treated as learning opportunities.

Once each week, Huntsman management gave the toolbox talk. This helped AMEC and sub-contractor’s staff to understand more about the wider project picture and showed that the client was interested. Senior AMEC management attended toolbox talks at least once per week

AMEC are using their internal Capability Development and Competency Assurance (CDCA) scheme to certify competencies of its staff and subcontractors.

A training matrix was used to cross check skill competencies across the project and followed up with appropriate training as required.

There is joint emphasis on developing younger people by mixing them with those more experienced in an attempt to ensure business continuity and to counter an aging workforce.

H&S practice

Everybody working on the project (Huntsman, AMEC and sub-contractors) had 4 hours safety induction training plus safety training specific to their particular roles and site. Helmet stickers were issued when induction and safety training were completed.

The client’s plant manager came on site and introduced himself to the operatives, always attending the inductions – this is a fairly new concept.

There was a budget for H&S specific items built into the project costing. This covered induction training, the helmet stickers, a safety booklet and other safety promotional material.

Even those on site for a short time went through the induction and safety training – they were identified as the most vulnerable category of workers.

Extensive use was made of posters to reinforce the safety messages.

Safety “away-days” were held for supervisors

No incentives (positive or negative) were paid to either AMEC or individuals for H&S performance. Both Huntsman and AMEC management believe this is right. Instead £100 per day was given to local charities of the teams’ choosing for every accident free day. A lot of fun was had and team spirit created in selecting these charities.

AMEC are introducing a recognition scheme for people based on their safety record. Credits are given for the hours of safe working and deducted if there are unsafe incidents. When the credits reach a certain level they are recognised with a token gift and a letter from the MD.

If they did not feel an activity was safe, it was emphasised to everyone that they should not continue until reviewed.

A culture was established that all are responsible for H&S – not just the safety team.

It was felt that people should not act on their own initiative on matters of H&S. There are set rules, method statements, etc. However they encourage people to come forward with ideas and suggestions for improvements and reporting non-conformances and near-misses.

5.2.5 Innovation and Change

General business/partnering practice

A joint waste management initiative between AMEC and Huntsman was started during project intervals and is now implemented. It is now regarded as one of the best in the industry.

H&S practice

Trends are identified and an individual is assigned as owner of each issue. These are prioritised as high, medium or low depending on the effort required and the potential benefit and improvements are tracked.

Huntsman maintains a best practice register of all H&S activities that can be accessed by title or when in the process they should be put in place.

5.2.6 My Organisation

General business/partnering practice

AMEC and Huntsman have vendor accreditation programmes for sub-contractors. Huntsman's programme was developed from AMEC's procedures.

H&S practice

The plagiarising of good H&S practice between AMEC and Huntsman is quite common, open and encouraged.

AMEC has taken the initiative to establish an AMEC Overhauls Client Group to promote a wider and consistent H&S vision across all AMEC overhauls clients (e.g. BP, Texaco, Conoco). This is a learning process and helps AMEC and sub-contractor staff who spend short periods on each site to experience consistent H&S practices.

5.3 LILLY

5.3.1 Business Relationship

General business/partnering practice

Although there is no written down joint mission statement, there is good alignment at corporate level of the goals and visions of the partnership and it is felt that there is a good business fit between AMEC and Lilly.

Lilly's values of respect for people, integrity and excellence are aligned with AMEC.

"Lilly with AMEC has a competitive position. We feel good that AMEC are going to make a profit but not making an excessive profit out of us. The incentive is for AMEC to grow their business with Lilly." - Lilly quote.

H&S practice

The general approach is that Lilly sets the H&S policy whilst AMEC implement it. AMEC's H&S strengths were one of the reasons for them getting the contract in the first place.

AMEC brought a better focus and new practices on H&S, e.g. standard operating procedures, method-statements, risk-assessments, supplier qualification, tool-box talks, near-miss reporting, tracking actions, checklists before starting jobs, etc. Lilly's own H&S procedures have been "bolstered" by the good practice that AMEC bring with them.

AMEC is trying to create a culture of safe behaviour.

5.3.2 How We Work Together

General business/partnering practice

There is good integration of AMEC and sub-contractors into Lilly. Facilities services staff all wear the same fleeces and shirts with "Lilly Facilities Team" on the back and just a small badge to show their home company. The team use Lilly IT systems and AMEC has full access to Lilly's Sports and Social Club and the Lilly Intranet - a truly integrated team.

There are strong relationships between the Lilly and AMEC management teams. They have worked together for some time now and are even discussing succession planning and encouraging relationship building at the next levels down. The next AMEC general manager for the contract could come from Lilly or AMEC.

There is a very "open-book" relationship, but this is the nature of the contract. However, Lilly is nervous about revealing too much commercially sensitive information in case, for whatever reason, the relationship has to be terminated.

Lilly has a hands-on attitude to AMEC's services keeping very much in touch with day to day developments.

They do have disagreements but they are usually resolved. Part of the relationship is: "Let us talk about it, resolve it and actually get to a conclusion at the end".

Lilly are involved in the service planning and monthly review of key service areas and metrics.

Lilly are involved in the interviewing and selection of major AMEC sub-contractors.

H&S practice

Both companies use the same H&S reporting tools and database.

The weekly supervisors' meeting starts with H&S.

AMEC's Central H&S team audits the sites annually. Their last score was 92% and the sites were runner-up in AMEC Managing Director's Safety Awards.

The H&S KPI measures incidents (negative) and follow-up to audits, reports, observations, etc (positive). However, Lilly felt that measuring such aspects as visits from safety personnel, training and staff turnover can also improve H&S awareness and reduce accidents.

5.3.3 Adding Value

General business/partnering practice

Lilly gets from the contract a good FM supplier who has introduced robust H&S practices and who can make available to Lilly the wider expertise of the AMEC organisation. However, there was one slight criticism from Lilly that it did not always seem easy for AMEC to identify and access their wider resource.

There is good resource sharing between the two companies e.g. if AMEC is short of an engineer one day then a Lilly engineer may step in. Both companies provided resources to work on the Legionella programme.

There is also good sharing of ideas and practices for use elsewhere in their organisations.

AMEC are achieving productivity gains through new initiatives, e.g. introducing day-time cleaning, multi-skilling their staff to be able to undertake a number of tasks to give more flexibility and the introduction of a more effective invoicing system for the contract.

There is a range of views on the extent to which learning is captured from the service and input to continuous improvement. The common concern is that most learning is captured informally and that a harder process needs to be put in place to maximise the learning benefits.

KPI's are seen by both companies as support to the service and an example of good governance – but not the driving force behind the service. Sometimes KPI's can drive the wrong behaviour. The main drivers are “get the job done well, feel good and solve problems for Lilly.”

H&S practice

Lilly is actively encouraging Amec identify new H&S initiatives. Although AMEC has done well, there is a feeling that they could still do better.

However, they felt that the partnership approach had been very positive in terms of H&S performance.

5.3.4 People Working in the Partnership

General business/partnering practice

If the Facilities Team identifies something that is not right, then they are empowered to fix it and there are no repercussions.

AMEC are experiencing a shortage of key skills e.g. mechanical and electrical engineers. The building of Terminal 5 at Heathrow has sapped a lot of these skills from the region.

H&S practice

AMEC and sub-contractor staff attend a one-day Lilly induction training plus AMEC induction training – both with strong H&S emphasis. There appears to be duplication in some cases. In addition there are specific training events for particular tasks, events, sites, etc. Some people have been on over 50 training events! This may be too many and not efficient.

Tool-box meetings are held as required for all operations. The frequency varies with the particular operation, e.g. the cleaners meet monthly but other trades will meet more frequently. There is a set agenda that is flexible enough to incorporate any current or changing issue.

It is not possible to allow too much initiative on H&S issues on the job – there are rules and regulations. However new ideas and initiatives are encouraged off the job. For example there is a suggestion scheme whereby staff can submit post-it notes with ideas, observations and near-misses. AMEC consider their near-miss reporting is not yet good enough.

Incentives for H&S performance at corporate and individual level are not generally favoured. There is a small amount (2.5%) of the contract value on offer to AMEC for achieving H&S targets. There is the monthly suggestions scheme on offer to employees and sub-contractors but mainly of a recognition nature, e.g. letter from the Managing Director, shopping vouchers, a bottle of wine for best ideas. Even this had a slow take-up. The belief is that H&S should come naturally.

The partnership actively seeks ways to recognise success and improvements in H&S. “We do share the successes. One of the things we want to do is set AMEC up for success, set people up for success and if they have done a great job we will tell them. If they think we are doing well they will tell us, so there is that sharing in the credit” AMEC quote.

5.3.5 Innovation and Change

General business/partnering practice

AMEC has a continuous improvement specialist as part of their team and an environment has been created that encourages innovation.

Lilly and AMEC have recently started a joint sustainability programme. The first two topics were use of grey water and recycling waste.

Although there is a no-blame culture, there is not as much emphasis on learning as there could be. Minor incidents of blaming others still occur.

H&S practice

On behalf of Lilly, AMEC run scenario planning exercises e.g. dealing with a flood at 5.00 pm on a Friday.

Shared presentations are given by Lilly and AMEC H&S specialists to staff and sub-contractors.

5.3.6 My Organisation

General business/partnering practice

Both companies say that they are “well aligned” and have a “good fit”. The AMEC board has even met on Lilly’s premises at the invitation of the Lilly Board. People feel good about working at Lilly.

“Our view was that servicing is not our core business and we do not want to be involved with Facilities Management. We want to discover and create/produce new medicines. The relationship is that Lilly needs to be the intelligent client but working very closely with an organisation that would deliver on our behalf. We wanted to have a hands-on role. Other

organisations may have gone down a route where once you have outsourced you forget it and leave it alone, whilst where we have outsourced, we want to be involved.” - Lilly quote.

AMEC is looking to extend its business with Lilly. They use Lilly as a reference site for new clients, they are pleased to be associated with an industry leader and they are learning a lot about the pharmaceutical industry.

H&S practice

There were several comments that insufficient attention was paid by the partnership to publicising H&S successes.

5.4 NETWORK RAIL

5.4.1 Business Relationship

General Business/Partnering Practice

“The rail industry was too immature and did not have a model for alliancing. Hence we lost control and control of costs during the Alliance days” - Network Rail quote.

Decisions by both organisations are not made wholly on bottom line, although Network Rail might be moving that way with the move to traditional contracts and in the attempt to reduce the costs of the West Coast Mainline project, which are out of control. AMEC could arguably find itself following suit. At the moment “safety is the main goal” AMEC quote. Network Rail did approve the cost of an extra safety officer without question.

AMEC are unsure of how Network Rail wishes to operate – it is changing from Alliances and joint working to a fixed price job for a scope of work. However Network Rail feel that both companies have the same goals in defining the success of the current project and wanting to deliver the project safely, to specification and on budget.

Because of the changing nature of the structure of the project and the work packages, there really has been no joint vision for the future and this shows through in many comments from both sides e.g. motivation of staff.

It was suggested that there is a culture in the railways to do with the traditional way that things have been done and that this culture is very difficult to break.

With the move towards short-term contracts, any changes in the business environment are not addressed together. They are initiated by the client and responded to by the contractor.

H&S practice

There is a strong safety management focus from both sides, but the actual performance is not up to standards of other industries or to those that AMEC would expect. “In H&S terms, the Rail industry is the poorest performing within the AMEC group. I came from a petrochemical background and found the safety culture here horrific at first – it has improved a bit”. AMEC quote.

There was a view that the culture appeared to be 10 years behind that in the Oil and Gas industry, although perhaps tempered somewhat by another that it was still top priority. Network Rail believed there was a strong safety culture and high expectations in both companies.

5.4.2 How We Work Together

General business/partnering practice

The client was involved with project planning initially and co-located at that stage. The planning included H&S.

The project worked better when major track and infrastructure renewals were conducted in blockades, but of course this is not always practical and weekend possessions are now the norm.

AMEC feels that there has been deterioration in many areas since the Alliance folded, e.g. in:

- Openness and information sharing
- Knowledge and resource sharing
- Working together to make changes
- Sharing ideas about H&S
- People motivation
- Decisions are now more cost based
- Learning from mistakes - more blaming now
- Solving disagreements and problems
- Small contracts discourage flexibility
- Putting contractual barriers in the way of performance - more sticking to contracts
- Recognising and using each other's core competences
- Relationships
- Separate monitoring systems

Network Rail feels that during the Alliance era the pendulum swung too far in the contractors favour and that they (Network Rail) lost the ability to direct as a client. With the transition towards more traditional contracting, they feel the pendulum has swung too far in the other direction and too many of the positive aspects of the Alliance have been lost. Their hope is that a happy medium will be achieved before too long.

AMEC's feelings towards the above list are summed up by this quote "If I believe that Network Rail has not done a particular thing correctly, in Alliance days we would have sat down and resolved it. Now I send a letter raising my concerns and then carry on the way they want to do it". In some areas though, for example documenting and agreeing changes, AMEC do welcome the return to a more structured way of working, that was absent during the Alliance.

Network Rail feels that both sides work hard at solving disagreements. AMEC generally disagree. Network Rail does concede that it will deteriorate with "firmer contractual positions" under the new arrangements.

Neither side believe that by working together they have identified total cost improvements nor are they good at responding to changes in the business environment. "Under the Alliance we used to work jointly together to improve performance - now they ask us what we are going to do" - AMEC quote.

In the Alliance, some things would have happened as a matter of course. Now there is a stop and the question asked “am I going to get paid if I do this?” before the work proceeds.

Network Rail finds AMEC upfront and open with issues. There are mixed views from the AMEC side regarding Network Rail’s openness and honesty, ranging from satisfactory to “could do better”.

H&S practice

There is agreement that H&S performance has not been seen to suffer with the change in contracting arrangements, although in the Alliance everybody worked more as an integrated team on H&S. Now there is more responsibility for action on AMEC alone. “The message is zero accidents and zero incidents and the organisations drive you to work that way.” - AMEC quote. During the Alliance certain safety meetings were chaired by Network Rail, but now they are chaired by AMEC.

The H&S procedures are predominantly AMEC’s, but within Network Rail’s rule books, e.g. Safe Systems of Work and Working on the Line, etc. The AMEC procedures include method statements and briefing sheets that are signed by all before a task starts.

At the work-front, there is substantial forward planning for each individual job, including H&S issues. However sometimes AMEC do get asked to do packages of work at short notice and there is not time for comprehensive planning.

Network Rail say that AMEC puts enough resources into H&S. AMEC say Network Rail don’t invest sufficiently to meet H&S best practice and are relying more on the contractors to do it, post-Alliance.

Network Rail is pro-active with H&S issues for blockades and there is a high profile attendance, but not on normal week to week working and interfaces.

There is sharing of H&S information and advice and Network Rail maintains a hazard directory for any area that people are going to work in.

The managers of some smaller sub-contractors have been brought in and told that they must improve their performance with respect to H&S. Sub-contractor personnel are requested to leave the site by AMEC if they do not have correct personal protection equipment.

Any accidents are analysed very closely. AMEC has a software package for fatigue management. This analyses accidents and the work pattern that the operative was engaged in to see if it comes within the boundaries of fatigue.

Network Rail’s safety alerts process does feed into other H&S processes immediately. For example, a particular type of trailer was banned from the railway after its brakes failed.

5.4.3 Adding Value

General business/partnering practice

KPI’s are used on the project and it was felt that they have an impact, but that they do not drive the project, except perhaps on H&S issues. However Network Rail thought they do drive the ethos, although not the only factor.

H&S practice

AMEC are not pleased with the H&S performance on the project although Network Rail is pleased. AMEC say it is not up to their standard. "There is more to do to drive it up" - AMEC quote.

Network Rail do a lot of monitoring against H&S KPI's, but AMEC has mixed feelings on how well the analysis is fed back to them. In particular, accident KPI's are not broken down and related to conditions, night working, hours worked, etc.

Both sides agree that working together in partnership they can give a better focus on H&S although there is a feeling that this is diminishing post-Alliance.

"AMEC has a good H&S culture and it reflects on their performance on site" Network Rail quote. AMEC say they have difficulty in cascading this culture to a transient workforce.

5.4.4 People Working in the Partnership

General business/partnering practice

There are some good relationships between people who have been involved in the project since 1998.

AMEC feels that Network Rail are short staffed and deficient in the quality of staff. Further, they require more staff now because there is no joint managing of situations. "From the guy working in the field up into the management there is a lack of skilled and experienced people generally." - AMEC quote. Network Rail does not share this view.

AMEC feels there is a blame culture in Network Rail. Learning from mistakes works well at the lower levels but when something does go wrong, Network Rail, at the higher level, blames the principal contractor - i.e. AMEC.

AMEC has its VOICE process for operatives (including sub-contractors) to air their views and concerns. It gives the men a feeling that they are in partnership. AMEC also has phone lines that staff can contact if they are not happy with practices on the job.

H&S practice

Everybody attends AMEC's induction process (4 hours) which deals with site safety and high level risks. The induction card must be carried at all times and renewed annually. Lower levels of risk are dealt with by method statements, risk assessments, work plan processes, briefings and toolbox talks. A strong emphasis is put on procedures at briefings.

Toolbox talks are continually updated to address current issues. Network Rail says that AMEC is very strong on toolbox talks which are held twice each week plus any specials. They include safety alerts from the wider AMEC group and the Rail industry. A suggestion from one AMEC interviewee was that the toolbox talks might not always be relevant.

At one stage, when the AMEC programme of work was much bigger than now, AMEC ran a 5 day safety training course for everybody coming onto the projects. It was a big investment and even sub-contractors bought into it by making their people available at cost. However as projects got smaller and less predictable and budgets were tighter, this event was stopped.

Network Rail felt that the inductions were good, but could be more detailed in relation to the specific project health and safety risk.

AMEC do invest more in the training of their direct employees than in sub-contractor or labour only staff. The sub-contractor organisations and labour agencies have to provide general skills and safety awareness training for their people. There is some concern that this training is not up to the standards that AMEC's direct staff receive.

AMEC specify the competences and accreditations required by staff supplied by sub-contractors and agencies. These are checked at induction.

On H&S, people are not allowed to act on their own initiative, nor change the working procedure that has been signed off. "When you go away from a procedure I always find you end up with accidents. We do not encourage anybody to bring their own initiative on H&S. Ultimately they have the right to stop work if there is a danger or non-conformance." - AMEC quote.

AMEC are now running a behavioural based safety initiative programme and have the VOICE system where anyone can report their concerns - anonymously if they wish.

Recognition, rather than financial incentives, is given for those excelling in H&S issues. Safety rewards include fleeces, certificates, hand-held organisers etc. A donation had just been given to the Diabetes Society after one year without a RIDDOR accident. Charities are selected by the workforce. These incentives are not the sole driver for H&S – just supportive. "Everybody comes together on H&S." - AMEC quote. Network Rail and AMEC do share the credit or pain for H&S success or failure.

5.4.5 Innovation and Change

General business/partnering practice

Both companies agree that there is learning from the project, but not a formal means of capturing it.

Both agree that they are not good at working together to make changes. AMEC feels that Network Rail move too slowly and can be entrenched in old methods/traditions. Product change in particular is difficult. "Network Rail shies away from more cost-effective products that they are not familiar with. They have a long and convoluted process of acceptance of products. There is just one Network Rail process of approval for all new equipment and it can take years and be outdated by the time it goes through" - AMEC quote.

H&S practice

Both parties agree that there is some H&S innovation in the project but feel they could do better. For example, the introduction of vacuum pumps to aid lifting heavy concrete ducting troughs was a joint initiative.

The influx of labour (of which there is a lot) for possessions often results in trivial accidents, so AMEC now have heavy policing in the early stages.

5.4.6 My Organisation

General business/partnering practice

Network Rail feels that working with AMEC has probably benefited their organisation.

Performance measures against the KPI's (including for H&S) are produced and publicised on AMEC and Network Rail systems. It was felt that they were not read as much as they could be.

H&S practice

Neither organisation feels that they have improved their focus on H&S because of the partnership.

Network Rail says that they have not changed any of their H&S business processes through working with AMEC. They operate within the standards and rules that were already there.

AMEC believe that they have implemented their standard processes within these criteria. However, they have changed operational H&S processes through learning on the project. In particular they take note of the Network Rail safety alert process.

5.5 HIGHWAYS AGENCY

The Joint Venture refers to that between AMEC and McAlpine.

5.5.1 Business Relationship

General Business/partnering practice

The Joint Venture and the Highways Agency have an aligned vision and goals for the project, but that is understandable in a well-defined project like this. The goal is to – complete the project to specification, time and budget (the specification includes H&S).

It is agreed that neither the Joint Venture nor Highways Agency skimp on key issues, confirming neither is primarily bottom-line focused.

“The form of the contract facilitates both informal and formal communications, which is of vast benefit” - AMEC quote.

“The most positive feature of the project has been the relationship” - AMEC quote.

H&S practice

The Highways Agency sets the H&S standards for the project, but at a very high level - mainly a statutory and legal framework. The Joint Venture then conforms to them using their own processes. In fact, AMEC standard H&S processes are used and Highways Agency finds them very impressive. “We, the client, rarely have to input on H&S because it is so good – it has set the standards for other jobs” - Mouchel Parkman quote.

The individual companies in the Joint Venture and the Highways Agency have written standards as to what is required in terms of up front planning of health and safety and it's really quite exhaustive.

The Highways Agency has never rejected costs for reducing risks or improving H&S. However, there was some concern expressed at the possible lack of appreciation by some people not located on site as to the extent of the hazard during the construction of relatively minor structures below power cables, for example, which could have been re-located to avoid the risks involved.

There does not seem to any significant difference in H&S performance with the Highways Agency working through a representative (Mouchel Parkman).

“I have to acknowledge that it is AMEC’s culture which is the driving force behind the H&S performance and they are happy to share and embed this in their Alliance partners” - Mouchel Parkman quote.

Both parties considered that working in partnership improved H&S, although AMEC stated that, “...I would like to think that it’s not just because of the partnership. Maybe it is because we as a company, and individuals within the company, are more responsible and aware of what we’re doing to our people; the potential that we have to injure them; to give them illnesses - for example hand/arm vibration, the white finger syndrome ...”

5.5.2 How We Work Together

General business/partnering practice

Financial and other information is shared willingly, all of which is conducive to good partnering. “Everything is completely open book with regard to costs.” - AMEC quote.

Due to working in the partnership it was felt that there was never a cash flow problem, which has helped to alleviate financial stress.

The Joint Venture finds the Highways Agency to be generally open and honest but reticent in coming forward in some financial areas e.g. with regard to total project budgets.

When disagreements occur, Highways Agency and the Joint Venture work well to resolve them. Only three issues in two years have been sent to the higher Steering Group board and none to arbitration.

The contract allows for self-certification of designs by the Joint Venture. This is a good example of partnering and the trusting nature of the contract.

Site staff from all parties is co-located and there is good integration of these personnel.

The Joint Venture feels that at times the Highways Agency can be slow in resolving issues and responding to requests. “Highways Agency can get caught up in their own procedures.” - AMEC quote.

H&S practice

Safety forms a routine part of the AMEC planning process. “We try not to separate H&S but make it integral with everything we do” - AMEC quote.

There are formal monthly meetings held between the Highways Agency and Joint Venture. Safety is always on the agenda. Many ad-hoc meetings are held between formal meetings. Output from all these meetings feeds into toolbox talks – see below.

Method statements, which include risk assessments, are the corner-stone of AMEC's H&S processes. They are produced for every task. The Highways Agency and Mouchel Parkman are involved in reviewing and commenting on method statements.

The Joint Venture is very firm about sub-contractors working to method statements and only those with proven H&S standards are selected. The Joint Venture holds regular safety meetings with the sub-contractors.

The Joint Venture has a full-time dedicated H&S advisor. The Highways Agency has neither a dedicated, nor visiting, H&S inspector and have relied on AMEC to provide this resource.

The Joint Venture has adopted AMEC's internal First Alert system, which ensures that people are quickly notified of any safety incidents. They are also reported back to AMEC and McAlpine HQ's and cascaded to other sites.

"The Highways Agency has stepped up its awareness of H&S issues over the past few years" - AMEC quote.

Near misses are investigated and called learning events.

5.5.3 Adding Value

General business/partnering practice

"The Joint Venture relationship (with the Highways Agency) is formed around audits, readiness reviews, productivity, benchmarking and sharing of information. Examples of these are continuous improvement registers and the correlation of all information to one central library" – Mouchel Parkman quote.

A KPI based performance measurement process was introduced by the Highways Agency, but with no financial gain or penalty. The Joint Venture welcomes KPI's as a tool for continuous improvement, but AMEC staff had mixed views about the extent to which they "drive" the project.

The Joint Venture is looking to achieve 9 or 10 on each of the ten KPI's by the end of the project. Currently they are scoring this on about half the KPI's, including Value Engineering/Innovation at 10/10 and PR management at 9/10. KPI's are calculated every 4 months and reviewed monthly. There is then a final KPI scoring at the end of the project.

The Joint Venture has identified 7 major areas for cost improvement/reduction since the indicative design. All have been accepted by the Highways Agency. Many have reduced the H&S risk. The changes have involved different materials or different construction techniques.

There is good sharing of knowledge between the Joint Venture and the Highways Agency, but not by formal process. As an example, the Highways Agency would like to build AMEC's H&S management practices into their future ITT. The Joint Venture's project director believes that knowledge sharing has resulted in performance improvements.

There has been some sharing of resources but mainly restricted to offices, vehicles and plant. It is not obvious that the Highways Agency has appropriate human resources on site to assist in any Joint Venture shortages. Appreciation of the partnering ethos with Highways Agency

people off-site has not been good and so the Joint Venture has organised a number of partnering workshops to bring in off-site people involved with the project.

AMEC has its method statements and quality management system standards and insist that sub-contractors do it the same way. “They don’t have any slack at all, even with the major utilities.” - Mouchel Parkman quote.

The informal environment encourages sharing of knowledge just chatting over a coffee, often imparting useful information that would not be on a drawing or in a document.

H&S practice

“The no blame culture that exists and joint working methods are the very essence of good H&S performance” - Mouchel Parkman quote. The nature of the contract with the effects of changes in scope decided through compensation events means that there is open discussion about issues.

The Joint Venture welcomes the Highways Agency’s H&S KPIs, which have brought more focus to H&S measurement and this approach is being extended into other parts of AMEC.

Many of the value engineering initiatives introduced into the project – by Joint Venture or Highways Agency – have improved H&S or reduced risk in their business case.

Both the Joint Venture and the Highways Agency are delighted with the H&S performance of the project to date. The 1 million man-hours without reportable accident was an important milestone for both organisations.

Final accolade: the HSE has visited this and other AMEC sites to seek advice on best practice for some H&S related elements in motorway construction! The Joint Venture has also received a lot of advice from HSE.

5.5.4 People Working in the Partnership

General business/partnering practice

It is generally agreed that the nature of the contract encourages a learning and “no-blame” culture and allows people to work well together, e.g. more openness about mistakes, observations and near-misses. No-blame is in the project charter. Highways Agency does not have a “not our problem” mentality, which some clients do. “Maybe a no-blame culture is impossible to achieve 100% but we are close” - AMEC quote.

Joint Venture engineers are rotated into different areas throughout the project, which is good for learning and development.

Delegation is part of the AMEC culture and is supported by their IMS system; “people are their own direct leader” - Mouchel Parkman quote.

The ability to input their experience under the partnering environment, without fear of being perceived to be giving instructions, was seen as a great benefit. People, such as the Client’s Representative had often spent many years in the industry and could make a significant contribution. “I have been impressed by the overall level of competence, but having said that there are quite a lot of younger people who haven’t seen as much and haven’t done as much. But even then they are still good” - Mouchel Parkman quote.

There are suggestion boxes located at various points throughout the site for employees and sub-contractors etc to put forward ideas.

AMEC has started a behavioural training initiative on the project and they consider this will be the next major step change to assist with the further development of safe practices.

Attention was drawn to the level of supervisory resources required from the Joint Venture's designers in the process of self-certifying designs. "Self-certifying is important in a design and build contract" - Mouchel Parkman quote, but they went on to say that the JV had a tight rein on this.

H&S practice

There is comprehensive induction training on the first morning for all personnel - including visitors. This is supplemented by briefing on method statements and COPs from supervisors. The inductions are regularly updated because there are so many changes. Sub-contractors are included in all on-site training. Visitors are accompanied on site after induction.

The bigger sub-contractors, e.g. Tarmac also conduct their own induction training in addition to the JV's site induction.

Toolbox talks are continually revised to reflect current issues. They are given as necessary with input from HQ's and site experience, not only to operatives, but to the young engineers and chainmen. They now include occupational health issues.

The Joint Venture's safety training budget was exceeded, but in view of the importance attached to training on the project additional funds were found.

People must work within rules and regulations regarding H&S and therefore can not use their own initiative. However they are encouraged to submit suggestions, observations and near miss reports or refuse to work if they consider a situation dangerous. The project operates a green card scheme that offers a £25 shopping voucher for good H&S reporting and actions. The project also encourages a "don't walk by" culture if people observe something wrong of an H&S nature, even if it is not part of their work.

There is a scheme of yellow and red cards (similar to football) for H&S infringements. Two yellow warning cards become a red card and the individual will be removed from site. There are also green cards for exemplary H&S behaviour which go into the voucher scheme – see above. Only two yellow cards have been issued to date.

"The workers are sticklers for PPE" – Mouchel Parkman quote.

The Joint Venture and Highways Agency agree that personal incentives are not effective for H&S. "We don't give bonuses for abiding by H&S rules" - £1000 was given to a local children's hospice after 1m accident free man-hours. The Highways Agency's senior representative attended the presentation ceremony and there was local newspaper coverage, which gave a boost to the workforce.

The Joint Venture uses the AMEC VOICE process, by which operatives meet collectively with management each fortnight to air their views on anything – including H&S. It works well.

"We want everybody to come into work in the morning and go home safely at the end of the day" - AMEC quote.

5.5.5 Innovation and Change

General business/partnering practice

The Joint Venture built up good relationships with key stakeholders that has assisted their excellent traffic management record, e.g. with Local Authorities, Police, Utilities, Emergency Services and the Environment Agency.

The same relationships have assisted in driving through value engineering and innovation; e.g. alternative plans for demolishing a bridge over a bank holiday weekend as opposed to six shorter shutdowns over six weekends. As well as being more economical and improving traffic management, this proposal reduced H&S risks.

The design and build contract was considered to encourage innovation.

AMEC has a Best Practice Forum on its website to which this project inputs that allows new best practice to be captured and shared. AMEC also keeps a best practice spreadsheet on site – 30 activities on it at present with half relating to H&S.

Both AMEC and McAlpine have continuous improvement managers on site. They contribute to the central libraries at their HQs designed to capture learning for future use.

On the sustainability side, for example, 200 tons of material was recycled and used on site (80% of skip waste). Quite apart from cost, this would otherwise have meant that this material would have been brought from quarries on trucks – adversely impacting on the environment.

H&S practice

“I am not sure about the word “innovation” linked to H&S. In my view what we do here is actually basic and straightforward. We work at heights and we handle machinery H&S doesn’t need to be innovative; it just needs to be sound, solid and based on tried and tested methods.” – Mouchel Parkman quote.

Everyone is encouraged to put forward new ideas and there are suggestion boxes that are located around the site. Innovation and design are being used jointly to proactively improve H&S.

One development is the introduction of hazard identification drawings, which ensure that residual risks are clearly communicated to the site team and the eventual maintainer.

The Joint Venture has worked hard at not letting the work interfere with the public. They have maintained good communication, even sending out newsletters to local residents.

5.5.6 My Organisation

General business/partnering practice

“By improving your KPI score card you improve your service to the client” - AMEC quote.

AMEC use the success against the M60 KPI’s in tenders for other Highways Agency projects and for other clients’ projects. In evaluating tenders, Highways Agency put a lot of emphasis on the KPI performance of the bidders through its CAT initiative.

“We have got out of the project an improved ability to work in partnership, which helps our relationships with other projects.” - AMEC quote.

AMEC believe that they have helped the Highways Agency to improve its service to its customers - the public. “We have kept six lanes going here all the time through the work – and safely.” - AMEC quote.

H&S practice

“The Highways Agency’s approach to H&S is an expectation that the companies working for them will treat it as paramount and be exemplary players ... when they select contractors, if anyone who has had contact with this job is on a tender assessment board, they will actually now know better what they should be looking for. I would like to make that one of my main points really.” - Mouchel Parkman quote.

KPI’s are widely publicised both inside and outside of the project, including accidents and incidents. “It’s a very big thing” - AMEC quote.

5.6 SHELL ONEgas

5.6.1 Business Relationship

General business/partnering practice

Joint vision forms part of the contract, based on H&S, commercial, partnering and adding value. “Our job is to support ONEgas business – clear as a bell” - AMEC quote. However neither side agrees that AJS and ONEgas goals and vision motivate people working in the partnership. At the top level yes, but it fades away. They may be too high-level for some people.

There is agreement that the partnership responds well to change because there are changes in the business environment all the time. However some of the change processes on both sides can be longwinded. AMEC say that they are best in reactive mode - probably one of their strong points.

ONEgas says that AJS’ consideration of the bottom line depends on who you talk to e.g. Stork is more of a contractor/client relationship whilst AMEC is more attuned to partnering. AMEC feels that in the past Shell tended to make decisions based on the bottom line but that has changed in recent years. There is also more money spent on the integrity of the plant.

“It is an integrated contract. It is virtually seamless. Although people work for different companies or are paid by different companies, we work for one common goal. On the UK platforms you can not differentiate between a Shell man and an AJS man.” - AMEC quote.

H&S practice

“One of the good things about this contract is that the effort is focussed on H&S. We have an H&S plan for say 5 items and each will have a champion, who could be from either company” - AMEC quote. Since the Piper Alpha disaster the whole way that offshore operates has had a major overhaul with regard H&S.

“With AMEC, H&S participation is everything. The general manager of AJS pushes very hard.” - ONEgas quote. AMEC considers that their expectations are higher than those of ONEgas and that is the level to which they will aspire.

The safety plan formed part of the project planning process and a continuous improvement plan is put in place each year. The client specifies level of expectation. Achievement against the plans forms part of the scoring for bonus payments to AJS.

In fact 25% of the potential bonus/loss to AJS is based on Health & Safety. This is the level to which it is viewed. "Safety does not clash with cost" - AMEC quote.

Each H&S incident impacts the H&S scorecard, which affects returns to AJS under the bonus scheme. The difference between a good performance in recordable incidents, as against a bad performance can be about £250,000.

The Integrated Service Contractors within EP Europe (Shell's European operation) meet to exchange safety related information even though they are direct competitors. AMEC offered some good behavioural training techniques and another company had an excellent method of controlling lifts that might be better than theirs - "anything affecting safety we can exchange" – AMEC quote.

5.6.2 How We Work Together

General business/partnering practice

There is general agreement that AJS and ONEgas openly share financial and other information with each other. ONEgas finds that information from parent companies of the JV is more difficult to come by. There is also agreement that they are open and honest with each other with no hidden agendas.

Both agree that when disagreements occur they both work hard to find a solution. However, this is not always as quick, slick and acceptable as it could be, particularly at lower levels.

The client is involved in reviewing AJS procedures if they interface with its procedures, otherwise the client does not have right of approval.

AMEC would like to see more up-front planning. There are times when they feel they are forced into doing work too quickly.

There is an AJS board for governance purposes consisting of two directors from each JV member. Day to day management comes from a team of 6 AMEC, 5 Stork and 1 Jacobs' managers. They report monthly to the board on all issues including H&S. AJS doesn't employ anybody. People are seconded to AJS from their parent companies. They then behave as part of an integrated AJS and all work together with no separation based on parent company. The intent is to avoid an interface between the different contractors.

AMEC say that ONEgas in general provides sufficient resources except for some key skills offshore, such as OMI's and HMI's who are responsible for making the plant safe for AMEC to work on. It would appear that there is a national shortage of such skills.

Subcontractors and significant suppliers are selected in accordance with robust procedures, which include an in depth review of their H&S processes.

H&S practice

The project has to comply with ONEgas standard procedures, but AJS will generally come up with improvements. Most of the safety procedures and management systems used appear to be AMEC's.

“Our safety effort is regarded by the client as very positive and they accepted that our safety culture is better than theirs. AMEC within AJS is definitely the strongest in H&S.” - AMEC quote.

There is a fully integrated H&S function in place with one set of documentation and an improvement plan. ONEgas and AJS H&S people work alongside each other. H&S is entirely open on both sides and credit for success is shared.

AMEC undertakes H&S good practices almost irrespective of the cost, which has nearly always been available from the client afterwards. “We don't talk about cost and safety in the same breath. We don't work like that” - AMEC quote

There is a monthly management safety meeting between AJS and the client and a joint weekly safety committee (SAFCO). Toolbox talks and other such events probably average one a day and will deal with current issues.

5.6.3 Adding Value

General business/partnering practice

The relationship is only a year and half old. It is suggested that as yet the partnership does not have the volume of experience required to partner fully and they are still learning.

Mixed views as to whether sharing knowledge in the partnership has enabled improvements in performance. The ONEgas view is that there have been several examples, but they do not feel that AJS are “going the extra mile.” AMEC' view is that by being open, problems can be spotted more quickly.

Likewise differences over whether working together has identified total cost improvements. ONEgas says not yet, but there were many uncertainties at the start of the contract and this will take time. AMEC say they have, but that ONEgas is not really driving them down the cost-reduction route. Cost KPIs only count for some 20 – 25% of the reimbursement make-up.

AMEC has a business improvement team and part of their brief is partnership and relationship management.

Key subcontractors are encouraged to have business improvement plans and H&S forms an integral part.

There would appear to be limited resource sharing between the Joint Venture and ONEgas, although in Assen a “best man for the job” approach is taken.

ONEgas says that KPIs and scorecards do drive the ethos of the project because they determine the profit return to AJS. However, they drew a distinction between lagging indicators such as accident frequency ratios and leading ones, which have yet to happen, such as the H&S plan. Mixed responses from AMEC which range from that they do drive the project to that they are just a tool for managing the business. KPI's are reviewed monthly.

H&S practice

The over-riding issue is that despite all the focus, investment and hard work on H&S by the partnership, the incident rate is too high. There are too many minor incidents. “We are still hurting people on a regular basis” - AMEC quote.

Neither AMEC nor ONEgas is satisfied with the H&S performance despite the acknowledged effort that has been expended. One AMEC interviewee was concerned that near misses were not being reported rigorously enough. ONEgas say the partnership is struggling to introduce innovation to improve H&S on the project.

Both sides see the partnership approach as a positive step towards improving H&S. “It stops the discussion from blaming each other and focuses on the root cause” - ONEgas quote. “If you can get the partnership working in an excellent manner, then it will be a positive step towards improving H&S” - AMEC quote. There is a better focus, not necessarily due to working with ONEgas, but because they are working together.

Major sub-contractors are required to complete an FPAL (First Point Assessment Ltd) customer satisfaction review. The feedback has suggested that this assessment has been invaluable.

Shell is now committed to spending £250M on improving the safety on all their platforms.

5.6.4 People Working in the Partnership

General business/partnering practice

People are accepting and benefiting from the partnership style of working – although it is taking time. The good thing now is that the slow changers are beginning to stand out. It is reaching the stage where you wouldn't know if it was ONEgas or AJS as you come in.

There is some learning from mistakes without blaming people, but this was qualified by both partners, saying that it does depend on the topic and the person. There are still pockets of blaming on all sides.

The average age of people working on the service is 49. There is a need to invest in bringing younger people through, recognising the physical and stressful nature of the work. AMEC has a programme of recruiting apprentice offshore technicians to address this skills shortage in the long term.

Skills requirements are fluid. At present, certain skills and experience are needed, but over the next six months it could be different.

AJS hold quarterly full day workshops with sub-contractors to share innovation, improvements and learning.

AMEC has a First Step programme. Six times a year, they take 20 people away and spend 3 days teaching them about the psychology of influencing people. Not just safety related, but behavioural understanding. Despite all the training and briefing, the main driver for safety has “got to be in your head” - AMEC quote.

AMEC says that there are still client people who do not have the skills or ability to deal with partnership style working. ONEgas did not raise this as an issue.

There were different views on whether in the partnership authority is delegated to people to act on their own initiative. ONEgas says they have given AJS the same financial authority as their own people. AMEC says they are only partially empowered and there are a lot of financial controls imposed by ONEgas. “To buy things you have to work hard to get approval” - AMEC quote. However, H&S is an exception.

H&S practice

The H&S culture is driven from the top down within AMEC. However, this culture does not yet appear to have reached all the lower levels. There may be too many sub-contractors and too many different nationalities to achieve one consistent culture. There was an AMEC view that even within AMEC there is not a single culture and that it depends to a large extent on who is leading the project.

People can act on their own initiative regarding H&S, but not outside of the agreed procedures. But there are processes for starting initiatives which must be adhered to. At the same time, “you do not want people going off doing their own thing”.

Adequate provision was made for H&S training and competency requirements were established, including H&S.

Everybody coming on site receives a starter’s magazine covering the service vision, policy statements, company profiles, safety rules and organisation charts. They then receive induction training and site specific training for the various areas, especially going offshore. New starters wear a green safety helmet for typically 3 months, as do occasional visitors to rigs.

Tool box talks are held daily to address the issues of the day. Supervisors and foremen are specifically trained in how to deliver these talks, so that they are not just a “go and talk to the guys” session. There are also separate monthly meetings with operatives on general issues.

Site specific training and inductions are extended to all sub-contractors. AJS will pay for and organise some sub-contractor training if they want them to do something extra. “Occasional” sub-contractors are a major concern and a lot of labour only suppliers are used in Holland for offshore personnel.

Each bigger individual task has specific safety meetings, reviews, away-days, etc. This can involve bringing 60 people in and paying them for a day before a task starts.

Neither side supports personal financial incentives for H&S. AMEC do provide team awards and charity donations. ONEgas favours praise. “The driver is not to hurt anyone - not to get a reward”.

AMEC senior management are conducting safety interventions at Den Helder Heliport, where they meet staff for discussion before they board helicopters for the platforms.

5.6.5 Innovation and Change

General business/partnering practice

Both companies agree that learning is an important objective of the partnership, but there are mixed views about the extent to which this happens. ONEgas does concede that it may be too early in the life of the partnership yet.

Both agree that managers in the partnership encourage new ideas. However, ONEgas feels that they are in overload with major initiatives coming down from Shell Europe. The ONEgas business improvement manager is attempting to capture all ideas in a systematic way.

The shut down planning undertaken by AJS has been a major improvement for ONEgas customers – its operations people. This is a good example of both sides learning from the partnership. ONEgas also frequently shares experiences, processes and partnering approaches with other AMEC Europe customers. Likewise AMEC has used some of the processes developed with ONEgas elsewhere in their organisation.

Ideas are welcomed freely – “delivery beyond all boundaries” is the ethos of the project.

As a learning tool, AJS uses customer feedback forms and modification reports to help capture improvements.

H&S practice

AMEC detects a difference in H&S approach between the Dutch culture and the UK culture. The UK side is more intense, pragmatic and wants continuous improvement compared with the Netherlands.

“There is a clear H&S culture in AMEC Oil and Gas now, whereas 25 years ago it was a set of rules. People know more in that area than in any other. It gets so much attention to detail and so much profile. It is difficult to believe that there is anybody who does not have a good idea of what is expected of them.” - AMEC quote.

5.6.6 My Organisation

General business/partnering practice

There is agreement that working together is good for each other. Shell is AMEC’s biggest world-wide customer and the AMEC team feeds back what they find out about Shell into the wider AMEC business.

H&S practice

Performance against H&S measures is publicised on the AJS intranet and on notice boards on each platform.

ONEgas feels that its organisation has improved its H&S approach because of the partnership whilst AMEC feels it would have happened anyway. “The major step forward is the integrated approach to H&S. It is not dictated under the contract, it is now shared ownership for the whole plan. H&S is a shared item and not dictated from Shell to AJS” - ONEgas quote.

6 OBSERVATIONS

6.1 OVERVIEW OF CONTRACTOR APPROACH

Aspects of good practice are mentioned below in connection with particular projects. It is possible they were employed on other projects, but not specifically picked up from the interviews.

6.1.1 The business relationships

Long term partnering

AMEC favours the use of long term partnering relationships as shown in Dwr Cymru Welsh Water, Huntsman, Lilly and Shell ONEgas projects. The general business benefits of such arrangements have been found to be:

- Business continuity and the ability to plan and forecast better
- The ability for AMEC to identify and “book” ahead preferred direct staff and sub-contractors – often in an environment of key skills shortages. The consistent use of approved sub-contractors reduces the need for lengthy and repeated selection processes
- Motivation of staff attracted and enthused by the prospect of long term assignments
- Building of personal relationships between key client and AMEC staff
- Cost efficiencies through the integration of teams and sharing of resources
- Reduced learning curve on each project
- A smaller management team building on previous experience,
- Environment of continuous improvement

The partnership approach is seen by AMEC as a positive step to improving H&S performance through:

- the ability to “book” in advance sub-contractors with proven H&S practices to AMEC standards
- the establishment of the AMEC H&S culture and processes within a stable and consistent workforce
- an open and honest relationship leading to more willingness to admit mistakes (e.g. near-misses, non-conformances) and a no-blame culture. Being open can lead to H&S problems being spotted more quickly.

Joint vision, goals and values

With the exception of Network Rail (which was reverting to traditional contracting) all the projects had varying forms of vision, goal and value statements and these were published. There was always a reference to safety. The true impact of these statements generally and on H&S in particular was not clear. In Shell ONEgas, for example, it was felt that the statements were too high level and had little relevance to the work force.

Safety versus Cost

In all projects it was clear that safety was not compromised on financial grounds.

Form of contract

The move away from traditional fixed price contracts to more flexible partnering type contracts, which are typically cost re-imburement with pain/gain incentives against targets or management fee based, has been welcomed by AMEC. Under the NEC Option C contract with the Highways Agency, for example, the use of the compensation event process for changes of scope has mitigated the disputes and delays that are traditionally associated with this type of occurrence.

These collaborative style contracts have created an open-book and information sharing culture which has found its way into H&S. AMEC consider that such contracts, as used by the Highways Agency and Dwr Cymru Welsh Water, encouraged greater innovation and reduced H&S risk.

Industry culture

There appeared to be different levels of safety culture within different industries, which was commented upon by AMEC personnel who had worked in more than one sector.

The broad hierarchy, starting with the most advanced seemed to be petrochemical, followed by oil and gas and then construction and rail. The highly regulated Good Manufacturing Practices (GMP) environment in Pharmaceutical also appeared to be highly developed.

H&S policy and implementation

The approach taken in all projects was that the client set H&S policy and standards and AMEC implemented their own H&S processes in order to meet these standards. All clients recognised that H&S was one of AMEC's strengths and indeed was one reason why AMEC won the business in the first instance.

Partnerships don't just happen overnight

The most successful working relationships amongst the projects had developed over a number of years. The AMEC/Shell ONEgas partnership was still forming after 18 months. It is also clear that both parties have to work at the development of the partnership. For example, on Highways Agency and Dwr Cymru Welsh Water, partnering workshops and road shows were run with the client for Alliance partners and sub-contractors in order to promote the partnering ethos.

The AMEC/Network Rail Alliance, although long-standing, did not produce the required benefits and had to be terminated by Network Rail. The reasons why this Alliance failed could probably form the basis of a further study.

Up-front planning for H&S

In all projects there was joint up-front planning for H&S and in most cases the safety plan was a part of or integrated with the overall project plan. In the Huntsman, although the project duration was only 50 days, shut down both overall and H&S planning began one year before the event. For some Network Rail projects and ONEgas tasks, which were requested at short notice, AMEC felt that there was insufficient time to plan as thoroughly as they would wish.

6.1.2 Working together

Open sharing of financial and other information

In the partnering style projects, there appeared to be good sharing of financial and other information. This sharing was driven by the nature of the contracts, all of which had an open-book element to them. As was explained above, this sharing environment also fed through to H&S issues, with consequent benefits.

No projects reported or suspected any dishonesty or deliberate withholding of relevant information. However, Lilly expressed some reservation as to the level of financial openness that was appropriate.

Integration

Again on the partnering projects, there was good integration between the client and AMEC. Typically there were joint management teams for the projects, joint planning sessions, joint project and H&S reviews and co-location of staff. Major sub-contractors were generally included in this integration. “Seamless” was used to describe the AMEC/client/sub-contractor teams at Huntsman, Lilly and Shell ONEgas. At Lilly they even wore the same uniform embellished with the team logo.

The relationship between the senior AMEC manager and the senior client representative was crucial. At Huntsman, these individuals not only shared an office but shared the same telephone, absolutely ensuring there were no hidden agendas. It was interesting that they had worked together on the previous 3 shut-downs. In view of the importance of this relationship, it was surprising that apart from Lilly, no project had appeared to address the issue of succession planning. At Lilly it was felt that the next general manager of the service could either come from Lilly or AMEC.

Disagreements

In the partnering projects, both AMEC and the clients worked hard to ensure that disagreements were resolved satisfactorily. In some projects there was a formal dispute resolution process but the higher levels of the process were never invoked. There was no evidence of any “show-stoppers”.

H&S issues

On all projects there was a feeling that everybody came together to address H&S issues. There were no disputes. Even on the AMEC/Network Rail project which was characterised by other difficulties, H&S did not suffer.

There were full time joint H&S teams on the Dwr Cymru Welsh Water, Shell ONEgas and Huntsman projects. In the case of Huntsman it consisted of 6 people. AMEC provided full time H&S resource at the other projects.

On all projects there was regular and formal H&S monitoring. This was supplemented by regular audits from AMEC or client HQ’s. H&S measures and KPI’s were reported to AMEC and client boards. There were mixed views as to the extent to which H&S measures were publicised throughout projects. At Dwr Cymru Welsh Water there was a process of cross-audits where the client and two Alliance partners (one of which would be the organisation being

audited) would audit each others H&S practices. Sharing best H&S practice with other companies in the Alliance was a key part of the audit measure.

AMEC has implemented its group-wide Accident Incident Database (AID) software package that is used for the analysis of accidents, ill-health, hazards and near-misses.

There was mixed performance on the reporting of near-misses and non-conformances. This largely reflected the culture and management of the individual project. The strong culture at Huntsman means that an operative will be challenged by a colleague for not wearing gloves. Whilst at Shell ONEgas and Lilly, it was felt that not enough near-misses were being reported.

The employment of a large number of sub-contractors and labour agency personnel – particularly for short periods (a truly transient workforce) –made the achievement of a strong and consistent H&S culture difficult. Likewise the sudden influx of large amount of labour, e.g. week-end possessions on Network Rail, does require extra policing. On all projects, occasional sub-contractors were a problem. The Shell ONEgas project was subject to different national cultures and this also resulted in an inconsistent approach to H&S across the project.

At Huntsman, key sub-contractor management was taken away on quarterly workshops, which included a strong H&S element. These were instrumental in both imparting and gaining information and feedback.

At Huntsman a “Stop and Watch” procedure was employed where an activity could be observed and the individual then asked about what could be improved. The information was fed back into the system.

Method Statements

The cornerstone of AMEC’s H&S process is the method statement that is produced for each task. The method statement is sometimes broken down into relevant sections in a Construction Operation Point (COP) for each group of operatives and includes the risk assessment.

Operatives are taken through the relevant documentation before undertaking each task and they have to formally sign to confirm that they understand. The statement makes quite clear the skills, competences and certification required by the operatives(s). Not working to the method statement is a disciplinary matter.

AMEC insists that all sub-contractors, even the major utilities, produce method statements that comply with their quality management standards. Key specialist sub-contractors are trained by AMEC to produce their own method statements to AMEC standards.

Special attention is paid to where tasks interact. The interaction itself can require a method statement of its own and, in a handover situation, consideration of the skills of the operative receiving the task are taken into account.

Clients generally require, or if not are given the opportunity, to review method statements particularly if the task interfaces with their own processes.

Client involvement

In all projects, AMEC felt that the balance between the client and the contractor’s involvement was about right and relevant for the project.

6.1.3 Adding value

KPI's

KPI's were introduced by the client on all projects and in one case, Shell ONEgas, the results were actually used as a basis for AMEC's payments.

The AMEC view is that KPI's are a useful measurement and monitoring tool and can improve the service offered to the client. However they do not drive the ethos of the project. The projects were driven by a desire to get the job done well, not to hurt anybody or the environment, to feel good and to help the client.

There were mixed responses about how well KPI's were publicised throughout AMEC and the client organisations.

Resource Sharing

In some projects e.g. Shell ONEgas and Highways Agency, there was little scope for resource sharing, as the client just did not have the appropriate resources to offer. However, with Huntsman and Lilly, AMEC adopted a "best man for the job" approach, regardless of tradition or employer. Examples of co-operation ranged from, say, a Lilly electrician helping out AMEC for a day when they were short-staffed to AMEC providing a team to assist another Dwr Cymru Welsh Water Alliance company during a period of heavy workload.

During quiet periods, it is intended that Huntsman staff will be seconded to work for AMEC on the sites of other clients to gain shut-down and overhaul experience. AMEC and Lilly jointly addressed the Legionella risk at Lilly. Elsewhere there was sharing of offices, vehicles and plant.

Sharing Knowledge

Through working together, AMEC and their clients have undoubtedly shared knowledge and processes, but respondents had difficulty in identifying specific examples that had led to performance improvement. Some sharing examples that were quoted are;

- AMEC has made its H&S management processes available to the Highways Agency for inclusion in future ITT's
- The Programme Execution Plan that AMEC and Dwr Cymru Welsh Water developed has been adopted by the latter as a model to be used across all their businesses
- The AMEC vendor accreditation and materials purchasing processes have been used by Huntsman
- AMEC and Huntsman intentionally take on each other's good H&S practices
- Lilly make use of AMEC's greater buying power for procurement
- Shared presentations are given by Lilly and AMEC H&S specialists to staff and sub-contractors

All projects communicated quickly (normally by e-mail) the details of any H&S incident to the rest of the project, the client, AMEC (in UK and internationally) and to the wider construction industry. AMEC's internal First Alert system has been adopted for this process.

Working together to identify total cost improvements

Most AMEC respondents agreed that this is a benefit of the partnering approach. Some specific examples given were:

- On Highways Agency seven major areas of cost improvement were identified since the indicative design phase. All were accepted by the Highways Agency
- At Lilly, AMEC “multi-skilled” many of their operatives to give more flexibility in resourcing
- The shutdown planning undertaken by AMEC resulted in a major improvement for Shell ONEgas customers over previous shutdowns. This was a good example of both contractor and client learning through the partnership

With public infrastructure projects such as Highways Agency and Dwr Cymru Welsh Water, AMEC worked hard at minimising disruption to the public and at keeping them informed.

For example at the Highways Agency, by building strong relationships with the police, emergency services, local authorities and the Environment Agency they achieved an excellent traffic management record and were able to implement more advantageous road closure plans. Local residents were kept informed with newsletters. At Dwr Cymru Welsh Water, AMEC employs two public liaison offices to maintain close communication.

AMEC’s view of H&S performance

Despite some excellent H&S performances e.g. 1 million man-hours without a reportable incident on Highways Agency and Dwr Cymru Welsh Water, AMEC still adopt a “could do better” policy on all sites. They were generally pleased with their effort, but not necessarily with the result. The target is always zero incidents.

6.1.4 People working in the partnership

Induction training

AMEC gave induction training to all people joining or visiting projects, including client, sub-contractor and agency staff. This typically lasted 4 to 5 hours and included a briefing on the project, H&S, processes, etc. At Huntsman, the senior client addressed part of the session and this was appreciated. At Dwr Cymru Welsh Water, a test was given at the end of the session, partly to check understanding, but also to test for literacy (essential to know whether there is the ability to read safety notices and method statements).

The most vulnerable people have been identified as those on site for a short time, so even short-term visitors have to undergo induction training. At Dwr Cymru Welsh Water, all delivery drivers (including the postman) had to attend induction training. One of the few reportable incidents at Dwr Cymru Welsh Water involved an agency relief driver who had not been trained.

Further training

Induction training is typically followed by site specific, method statement and task specific training. Again this would include sub-contractor and agency staff. Generally these people are expected to come with certified training in the skills and competences for which they have been hired. Certification is validated at the induction training.

AMEC believes that management and H&S officers can create an appropriate environment, but individuals are responsible for their own H&S performance. As a result they have introduced behavioural training for their own staff at Dwr Cymru Welsh Water, Shell ONEgas, Network Rail and Highways Agency on the principle that “safety is in your head”. At Huntsman the client drew attention to the difficulty AMEC faced with personnel they only employed for a few weeks and expressed the desire that all the clients could buy into a behavioural programme as these people went from project to project with different employers.

At ONEgas, AMEC expressed concern that in the UK sector, because safety is such a major conversation point with a degree of overkill, apathy is creeping into the offshore workforce.

There were mixed responses as to whether sub-contractors and agency staff received the same level of project-specific training as AMEC direct staff. There did not appear to be consistency across the projects.

At Huntsman and Shell ONEgas AMEC and sub-contractor supervisors were included in offsite workshops to share innovation, improvements and learning.

In all projects, except Network Rail, it was felt that there was adequate provision for H&S training. When that project was running at a high level, Network Rail agreed that AMEC would run a five day training course at a local depot. That went on for almost a year, but it required a big investment and it was stopped.

Toolbox talks

AMEC makes extensive use of toolbox talks, which were held at varying frequencies on the projects, ranging from daily at Huntsman and Shell ONEgas to fortnightly at Lilly. At Dwr Cymru Welsh Water and Shell ONEgas, foreman and supervisors were specifically trained to deliver these talks effectively. At Huntsman the client delivered one of the talks each week and elsewhere other speakers included suppliers of PPE and plant and occupational health specialists.

The talks followed an agenda of generic material from the AMEC H&S manual and current project specific issues. At Huntsman the daily talk drew heavily on the safety report issued by the safety team on the previous afternoon.

H&S promotion

All projects promoted H&S through magazines/newsletters, posters and safety booklets.

At Shell ONEgas, in common with the industry, new starters or occasional visitors to rigs are identified through wearing green hard hats, in recognition of their vulnerability. At Huntsman helmet stickers are worn to show that a person has been inducted.

Skills

Generally AMEC and the clients put sufficient resources into the projects to ensure their successful completion and to address H&S requirements. The exceptions were felt to be in the quality and quantity of Network Rail teams and that Shell ONEgas were short of key offshore skills. There is a national shortage of these offshore skills, which AMEC is attempting to address with an apprenticeship programme. Both AMEC and Lilly were subject to mechanical and electrical engineering skills shortages, because such skills in the South East were being subsumed by major construction projects such as Heathrow’s Terminal 5.

VOICE (Views of Operatives In the Construction Environment)

AMEC noted the use of this process successfully on the large construction projects at Dwr Cymru Welsh Water, Network Rail and Highways Agency. Operatives meet with management on a monthly basis to air their views about anything on the project – including H&S. Many constructive ideas have emerged, which have the benefit of “buy-in” from the workforce, e.g. input into the selection and introduction of improved PPE at Dwr Cymru Welsh Water.

At Dwr Cymru Welsh Water the VOICE committees go to other sites and carry out hazard spotting.

No blame culture

In all projects AMEC encourage a no-blame culture, but it was generally felt that this could never be achieved 100% of the time. At Huntsman and Highways Agency any H&S incident was called a learning event. At Dwr Cymru Welsh Water, a no-blame culture was considered as a potential cause of complacency and so a culture of “responsibility” was encouraged instead. AMEC at Shell ONEgas felt that no-blame varied throughout the project. It depended on the topic and the individuals. This may be due to the immaturity of the partnering ethos in the project. At Network Rail there appeared to be a good no-blame and learning approach at lower levels, but AMEC’s view was that if anything went wrong they were immediately blamed by Network Rail at the higher levels.

Incentives for H&S performance

It was felt on all projects that personal financial incentives for H&S were not effective or desirable, but that a “pat on the back” was more appropriate and appreciated. However two particular initiatives were widely used and considered successful:

- Individual recognition for good H&S performance/behaviour, such as good suggestions, specific preventative behaviour, reporting near-misses and non-conformances or a long period of individual safe working. The recognition would take the form of a small gift or shopping/restaurant voucher and a letter from the AMEC MD presented in front of colleagues.
- A charity donation by AMEC (and sometimes the client) related to the period of working on the project without reportable incident. The charity is selected by the workforce and they enjoy doing this. Often there is local newspaper coverage of the donation.

AMEC as a contractor was incentivised to achieve H&S targets on just two projects – Lilly with a token 2.5% of incentive pot and, as noted above, Shell ONEgas 25% of incentive pot. In all other cases H&S KPIs were in place and both AMEC and the client expected AMEC to produce exemplary performance.

People acting on their own initiative with regard to H&S

The over-riding view was that people must work within the method statement for the task, including H&S. However, if an operative feels un-safe he has the right to stop work and report to his supervisor.

What is encouraged is the making of suggestions, reporting near-misses and non-conformances, challenging de-faulting colleagues, etc. Such initiatives are often recognised, as described

above. Most projects had a suggestion process whereby staff can easily make suggestions for H&S improvement – anonymously if required.

An interesting initiative on the Highways Agency was the use of green, yellow and red cards, the latter two similar to the football system. A green card is issued for positive H&S behaviour and leads to recognition as described above. A yellow card is issued for an H&S infringement. If an individual receives two yellow cards he is not allowed back on site. Only two yellow cards have been issued so far.

AMEC were equally strict on sub-contractors and agency staff not following method statements or not wearing correct PPE. People have been removed from the site for infringements.

6.1.5 Innovation and Change

Learning

There has been learning on the projects from good and bad incidents, but generally there has not been any formal process for capturing this learning, except perhaps for H&S incidents. Learning was seen as a spin off from the projects and not an objective. AMEC does, however, have a best practice forum on its website for sharing learning between all projects.

AMEC did maintain a continuous improvement register on the Highways Agency project and this fed into AMEC's central library. Dedicated continuous improvement managers were employed at the Highways Agency, Shell ONEgas and Lilly projects. At Shell ONEgas, sub-contractors were expected to produce business improvement plans and encouraged to participate in the process.

Innovation

Across the projects there were good examples of AMEC and the clients introducing innovative solutions to issues within and outside of the main projects. For example:

- AMEC employed an Occupational Health Company at Dwr Cymru Welsh Water who raised the awareness of occupational health and put a full-time nurse on site. Employees were most impressed that their employer was taking such an interest in their well-being.
- In the areas of sustainability and environmental projection:
 - A joint waste management initiative was introduced at Huntsman
 - At Lilly, a joint sustainability programme was introduced to deal with grey water and re-cycling waste
 - On Highways Agency, 200 tons of excavated material was re-used, representing 80% of the skip waste. Quite apart from cost considerations, this material would have had to be transported in from quarries with the associated environmental impact
- By using remote control technology, confined space working at Dwr Cymru Welsh Water was reduced
- Also at Dwr Cymru Welsh Water, pre-cast concrete chambers were redesigned to prevent access without the appropriate specialist equipment, which ensured that the proper procedures would be followed
- AMEC conducted scenario planning exercises with Lilly to identify how to manage a significant crisis at one of the Lilly sites

Innovation to improve H&S on the projects

It was considered that, in addition to cost savings, innovation in design, technology and methods of construction could significantly reduce H&S risk and was therefore to be encouraged. However, there was a view that unproven innovation should not be linked directly to H&S, which should be based on long-standing, sound, solid and tried and tested methods.

The sharing of ideas and advice on H&S is covered in the relevant sections above.

6.1.6 My Organisation

Through working on the partnering projects, AMEC felt that they had developed their partnering and relationship building competences. Dwr Cymru Welsh Water, Highways Agency and Lilly projects were particularly highlighted in this regard with case studies published in the AMEC magazine, presentations at corporate events and entering industry award competitions.

Lilly and Highways Agency have been cited as two projects which AMEC have used as references when bidding for new contracts.

Shell is AMEC's biggest customer in this sector and the relationships and knowledge built up through ONEgas have helped their business development elsewhere in the Shell group.

AMEC generally considered that their H&S procedures and practices exceeded those demanded by the client. Their focus would have been similarly driven with H&S regardless of the client. However, where they were able to learn from the client's procedures, as noted for example with Huntsman, these aspects were taken on board to improve their own H&S processes.

In response to the question as to whether AMEC's H&S practice had improved as a result of working with that particular client, there was a strong belief that H&S practice had most definitely improved as a result of working closely together in partnership. This general environment of pro-active cooperation and joint approach was considered to have a far more positive effect than any improvements that might be picked up from their procedures.

There was a feeling that there is a clear H&S culture in AMEC now, whereas in the past there was just a set of rules. It is driven from the top and gets substantial attention and profile.

6.2 OVERVIEW OF CLIENT PERCEPTIONS

6.2.1 AMEC's H&S strengths

All clients were impressed by AMEC's strong H&S focus and processes. In most cases they exceeded the clients' stringent requirements. H&S is clearly embedded in and driven by the AMEC culture, to the extent that the operatives themselves were said to be "sticklers for PPE" by the Highways Agency. As a result of AMEC's willingness to share these competences with clients and partners, all clients felt that their own H&S standards and processes had been bolstered and that considerably more had been achieved through working together than separately.

Quotes such as "with AMEC H&S is a given", "we don't have to monitor H&S with AMEC", "from an H&S viewpoint AMEC go the extra mile" and "AMEC give their people the best PPE and tools available" are testimony to AMEC's H&S approach and capabilities. Network Rail specifically commended AMEC's toolbox talk process.

However it is good to see that despite an excellent record, the clients support AMEC's view that there is still scope for improvement in line with their joint zero tolerance values.

6.2.2 Long term partnering relationships

Appreciating the benefits of long term partnering arrangements, four of the clients entered into such arrangements with AMEC.

Further these clients affirm that these arrangements are a positive step towards improving H&S. Specifically the openness, the integrated approach, the knowledge sharing and the no-blame culture of a partnering relationship are highlighted as enablers towards improved H&S performance. Interestingly the integrated approach to H&S does not appear to be specifically dictated in the contracts. It is an approach that AMEC encourages.

The Highways Agency was pleased with the nature of the NEC contract that allows for changes in scope to be decided through compensation events, requiring full discussion and resolution of issues within given time frames. This had mitigated the disputes and delays that are traditionally associated with this type of occurrence.

Network Rail thought that the rail industry was not ready to take on a partnership style of working and had lost authority and control of costs during the Alliance period. They have now returned to traditional lowest bid fixed-price procurement, but are anxious to find the right balance for the tasks in hand and the mind-set of the industry.

6.2.3 Working together

Generally the clients felt that working with AMEC was good for them. AMEC has brought innovation, skill, competencies and management systems to bear to the clients and other partners.

Dwr Cymru Welsh Water was impressed that AMEC will say no to business opportunities if they do not believe it is in Dwr Cymru Welsh Water's interests to proceed. This has enhanced Dwr Cymru Welsh Water's trust of AMEC. They consider that many other companies would just grab every opportunity going.

Dwr Cymru Welsh Water also commended AMEC's handling of change. It is recognised that change causes stress and when people are stressed they under-perform and take risks. AMEC's approach is that change is achieved through consultation and communication to gain people's buy-in. Dwr Cymru Welsh Water encouraged this approach and considered that it had significant benefits for health and safety.

Lilly gains a good FM supplier who has introduced robust H&S practices from the arrangement, allowing them to concentrate on researching and manufacturing drugs. However they were disappointed that the wider resources and expertise of the AMEC organisation were not always readily identified and made available to them.

AMEC has taken the initiative to establish an Overhauls Client Group to promote a wider and consistent H&S vision across all AMEC overhauls. This will enable AMEC and sub-contractor personnel who spend short periods on a number of sites to experience consistent H&S practices.

Network Rail, Lilly and Highways Agency appeared uncomfortable about sharing financial and other information beyond a certain level.

Dwr Cymru Welsh Water, Highways Agency and Lilly were able to identify areas where cost improvements had been made through working together. The other clients were not able to do so. This is not to say that there were not any. They were just not visible at the time of the interviews.

All clients reported very few disagreements that had not been readily resolved through open discussion within the first level of the project dispute procedures.

Where feasible and as the relationship developed, clients welcomed the sharing of resources on projects on a “best man for the job” approach. Huntsman appreciate AMEC’s greater buying power and sourcing competences, but were able to procure material on their behalf if for any reason an appropriate AMEC employee was not available. Huntsman is also willing for their staff to be seconded to AMEC on other clients’ projects during quiet periods to improve learning and development.

6.2.4 Service to Customers

Because of the AMEC partnership, Dwr Cymru Welsh Water has improved its service to customers. The number of flooding and complaints have gone down and performance up. Dwr Cymru Welsh Water was 3rd from bottom in the water company league tables and is now top.

The Highways Agency is delighted that 100,000 vehicles per day have continued to pass through the M60 widening site without incident.

The shutdown planning undertaken by AMEC resulted in a major improvement for Shell ONEgas customers over previous shutdowns. This was a good example of both contractor and client learning through the partnership.

Network rail felt that the improvements to customer service were as a result of upgrading of the railway and not as a result of working with AMEC.

6.2.5 Innovation

Mouchel Parkman (for the Highways Agency) thought that unproven innovation was not appropriate to H&S, although they always considered innovative approaches to construction that reduced areas of risk.

6.3 TRENDS FROM THE SCORES

The full summary of scores is included in Confidential Appendix 3, but these have been used to produce graphs comparing different aspects.

Perhaps the most meaningful graphs are those comparing the average of the AMEC scores with that of the client for each project. This information has been re-ordered to present the average AMEC scores in increasing value compared with the relevant client score for each statement. These graphs are reproduced below and discussed in terms of general scoring, scores that are higher or lower than the norm and those where there is a significant difference between client and contractor.

The sample size is far too small to provide any form of statistical analysis and within these structured interviews PSL never intends to use the scoring in this way. The process is aimed at eliciting views and comments, but trends in the scores can confirm or draw attention to some of the issues.

In producing the graphs, the scores have been derived as follows:- 1 - strongly disagree; 2 - disagree; 3 - disagree a little; 4 - agree a little; 5 - agree; 6 - strongly agree; and 0 - N/A (do not know enough to express any opinion). "N/A" only registers on these graphs with the single client scores. Any "N/A" scored by an AMEC representative has been discounted before calculating the average, to avoid distortion.

Nearly all statements were constructed such that the higher the score, the more positive the view of the relationship and the general or H&S procedure. However Q3.4 and Q4.7 sought opinions based on experience and Q2.7 and Q4.8 on which organisation provided the procedures and driving force on H&S.

6.3.1 Dwr Cymru Welsh Water

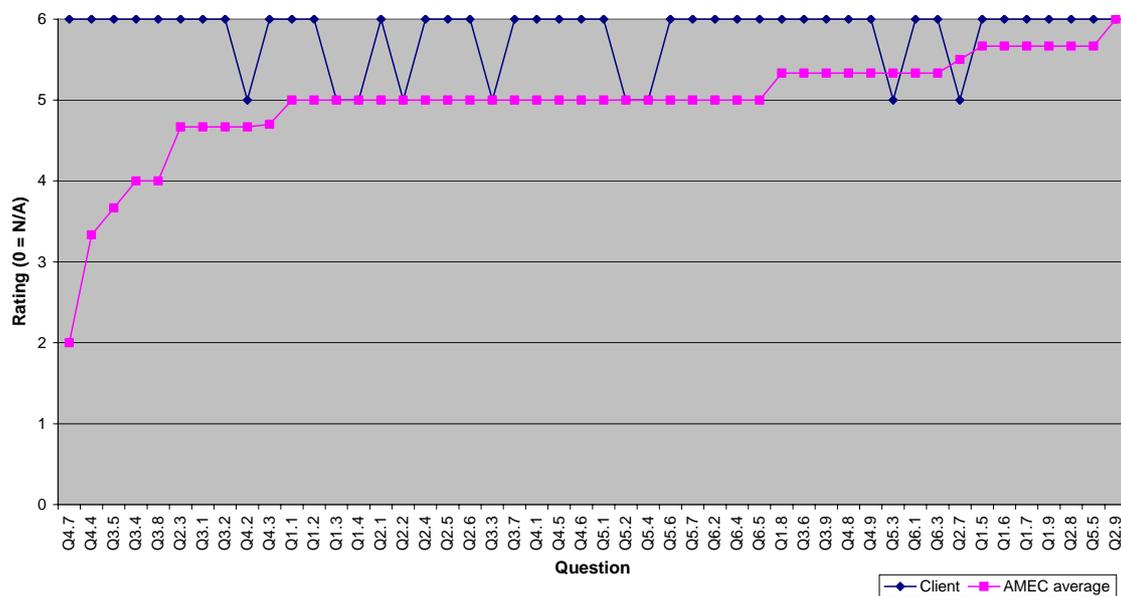


Figure 1 Welsh Water: Client and average AMEC scores

All client scores are in the 5 to 6 bracket, nearly all of which are exceed the AMEC figures and reflect a huge degree of satisfaction. Although they are slightly more self critical, the great majority of AMEC's scores are also in this bracket. Only three are on the negative side and they also represent the only ones where there is a difference of more than two points with those of the client.

Q4.7 Personal incentives for staff and operatives are effective in improving H&S

AMEC disagreed with individual financial incentives, but recognises achievement through other means. The client's marking was based mainly consideration of the acknowledged debate as to the merits of financial rewards.

Q4.4 Within the partnership authority is delegated so that people can act on their own initiative regarding H&S

Both parties considered that delegation should not enable H&S procedures to be varied, the difference being in the client's scoring relating to action when a dangerous situation was seen.

Q3.5 As a result of working with AMEC/ Dwr Cymru Welsh Water we can give a better focus to H&S

AMEC considered that they would give similar focus to H&S regardless of the client. The client stated that they had their own stringent safety procedures, although the project mainly followed those of AMEC (Q2.7). However, they ensure that the contractor’s standards and procedures are at least in line with theirs and felt that working together with AMEC they were able to jointly excel.

6.3.2 Huntsman

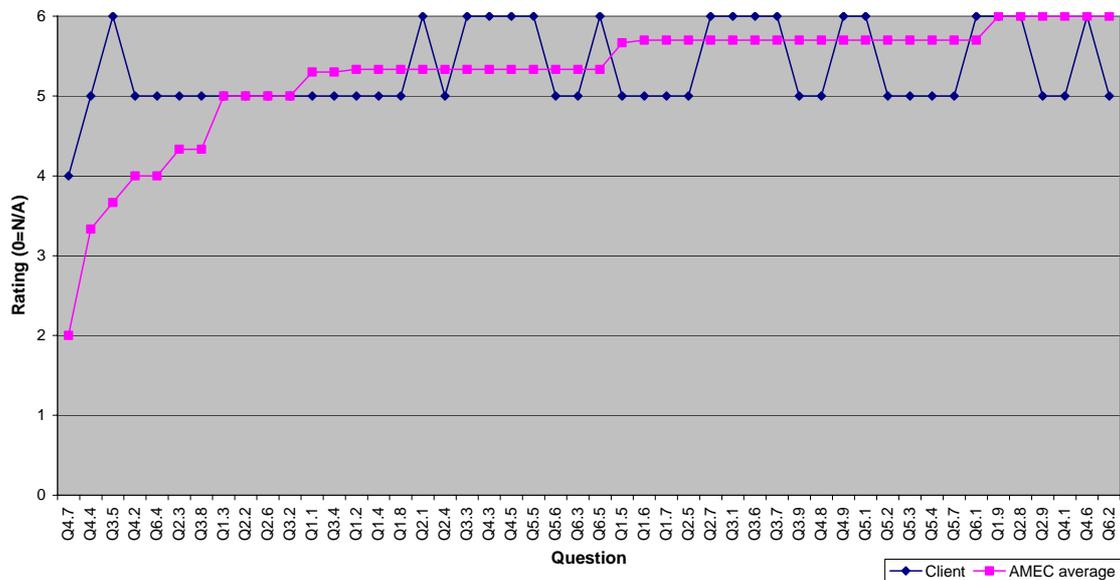


Figure 2 Huntsman: Client and average AMEC scores

Very similar shape to Dwr Cymru Welsh Water’s above. Once again, all client scores are in the 5 to 6 bracket, with even greater correlation with the AMEC figures, perhaps reflecting the high degree of development of the relationship. Amazingly, the same three statements appear on the negative side with identical AMEC average scores, although only one (Q3.5) differs by more than two points from that of the client.

Q4.7 Personal incentives for staff and operatives are effective in improving H&S

Both AMEC and the client were both strictly against individual financial incentives, although the former scored it more negatively. Preferred methods were giving personal recognition and donating to a charity, selected by the operatives, for each accident free day.

Q4.4 Within the partnership authority is delegated so that people can act on their own initiative regarding H&S

Delegation should not enable H&S procedures to be varied, but people were made aware of their responsibility towards others and encouraged to stop and question if they felt a situation was dangerous.

Q3.5 As a result of working with AMEC/Huntsman we can give a better focus to H&S

Once again, AMEC considered that they would give similar focus to H&S regardless of the client, but did acknowledge the way in which Huntsman’s similar safety culture made this much easier. Although the client has rigorous processes they felt that AMEC improved the focus.

6.3.3 Lilly

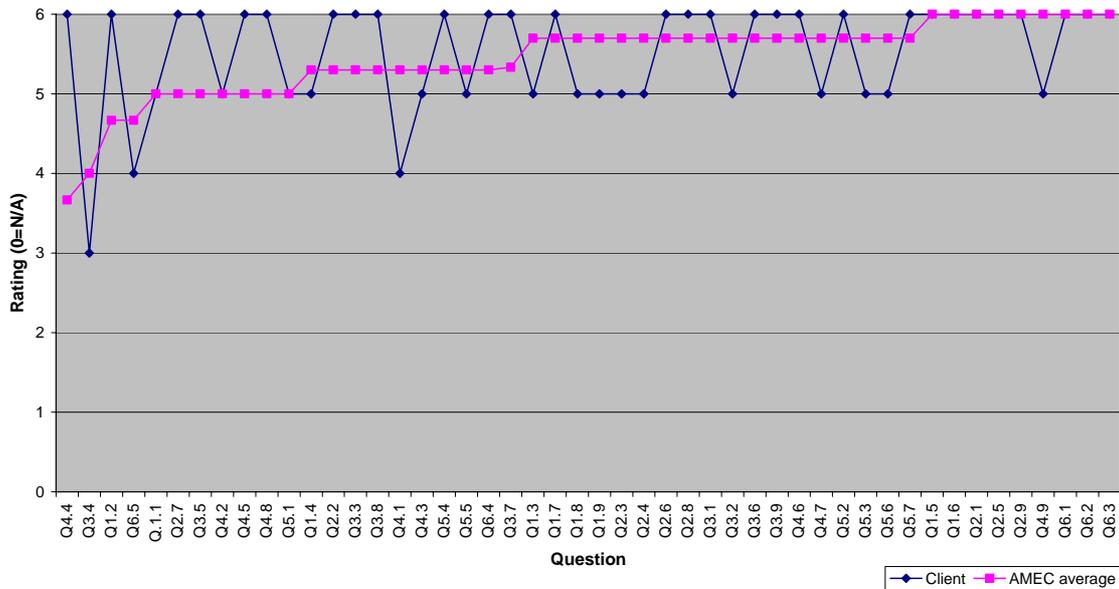


Figure 3 Lilly: Client and average AMEC scores

Overall, there is slightly higher scoring by AMEC with the client following fairly closely. AMEC’s one slightly negative score is also the only one with a difference from the client of more than two points and there is just one negative score from the client.

Q4.4 Within the partnership authority is delegated so that people can act on their own initiative regarding H&S

As with Dwr Cymru Welsh Water, both parties considered that delegation should not enable H&S procedures to be varied, the difference being in the client’s interpretation of the statement as relating to action when a dangerous situation was seen.

Q3.4 KPIs drive the ethos of the project

The client’s negative score confirmed their view that KPIs helped improve performance, but were not the main driver of ethos. The discussion with AMEC revealed that this was broadly their view, perhaps not reflected in the scoring.

6.3.4 Network Rail

The scores from both parties are generally lower than the other projects and in particular AMEC, with about 30% of their responses on the negative side. This did very much reflect the disappointment with the move away from the integrated Alliance environment that came through in the interviews, although the client did feel that it had been a step too far in some respects such as their ability, contractually, to impose financial and other restraints.

Due to the number of AMEC negatives, only the five from the client and the two lowest from AMEC have been noted below. These include the two statements with differences greater than two points.

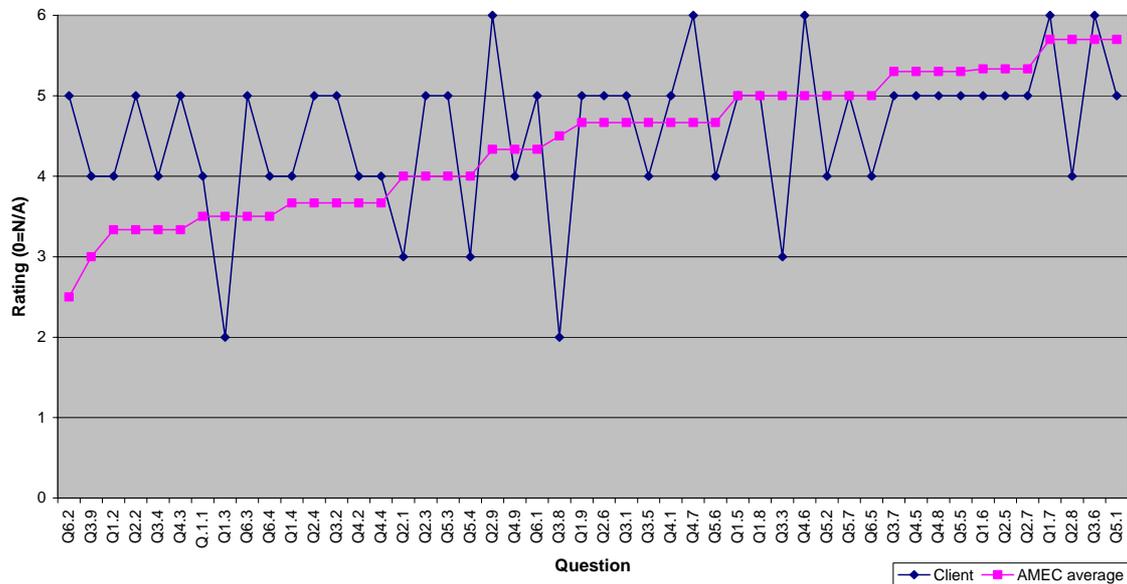


Figure 4 Network Rail: Client and average AMEC scores

Q6.2 *My organisation has improved its services to customers because of the partnership*

Although marked positively, the client qualified this by considering that it was due to improvements on the railway and this would have happened regardless of the style of contract. On the other hand, despite a fairly low score, there was a view within AMEC that there had been some improvements.

Q1.3 *Together we are good at responding to changes in the business environment*

Network Rail considered that this would no longer be done together, but initiated by one and responded to by the other.

Q3.9 *My organisation was pleased with the project's H&S performance*

AMEC confirmed it was not pleased with the overall railway culture when compared with other sectors nor the outcomes.

Q3.8 *Through working with AMEC we have implemented changes in our business processes to improve H&S*

The client felt that although there may have been learning, they'd not changed business processes. AMEC had taken procedures on board such as the safety alerts that immediately flags up incidents to the project and others in the industry.

Q2.1 Network Rail and AMEC openly share financial & other information so that progress against joint goals can be measured

This had now diminished with the change back to traditionally bid contracts, but the client considered that whatever the relationship it was inappropriate to share such information beyond a certain level.

Q5.4 As partners, Network Rail and AMEC are good at working together to make changes

Network Rail thought that although each could identify areas needing change, this had not happened together as there was probably no meeting of minds.

Q3.3 Working together with AMEC we have identified total cost improvements

The client considered this did not occur during the Alliance and control of costs was one of the main reasons for moving back to traditionally bid contracting.

6.3.5 Highways Agency

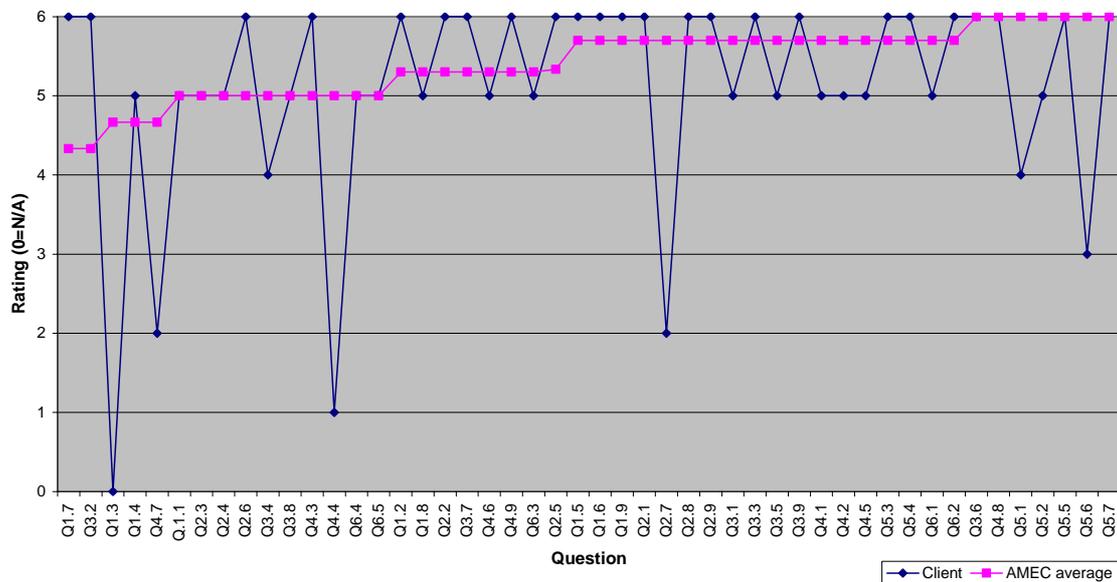


Figure 5 Highways Agency: Client and average AMEC scores

The scores on this project were in fact extremely high from both parties, with the only negative ones coming from the client and nearly all were in the “opinions” categories noted at the beginning of this section. Others not low enough to register below, resulted from a precise interpretation of the statement, such as in Q5.1 where learning was not considered to be an objective, but was an important and consequential benefit.

Q4.4 Within the partnership authority is delegated so that people can act on their own initiative regarding H&S

This was strongly stated as no delegation to vary the procedures or requirements and did not relate to drawing attention to or acting on a dangerous situation.

Q4.7 Personal incentives for staff and operatives are effective in improving H&S

The client’s view was that complying with H&S requirements was an expectation of the job and should not be rewarded with a bonus.

Q2.7 H&S procedures on the project predominately follow my organisation's standard procedures

This reflected the view that the Highways Agency’s H&S procedures were based on compliance with statutory issues and the legal framework, whereas the project’s construction H&S procedures were the responsibility of and part of the expertise of the contractor.

Q5.6 There is pro-active emphasis on innovation to improve H&S on the project

The view expressed was that good H&S should be based on sound, solid, tried and tested methods – not unproven innovation.

6.3.6 Shell ONEgas

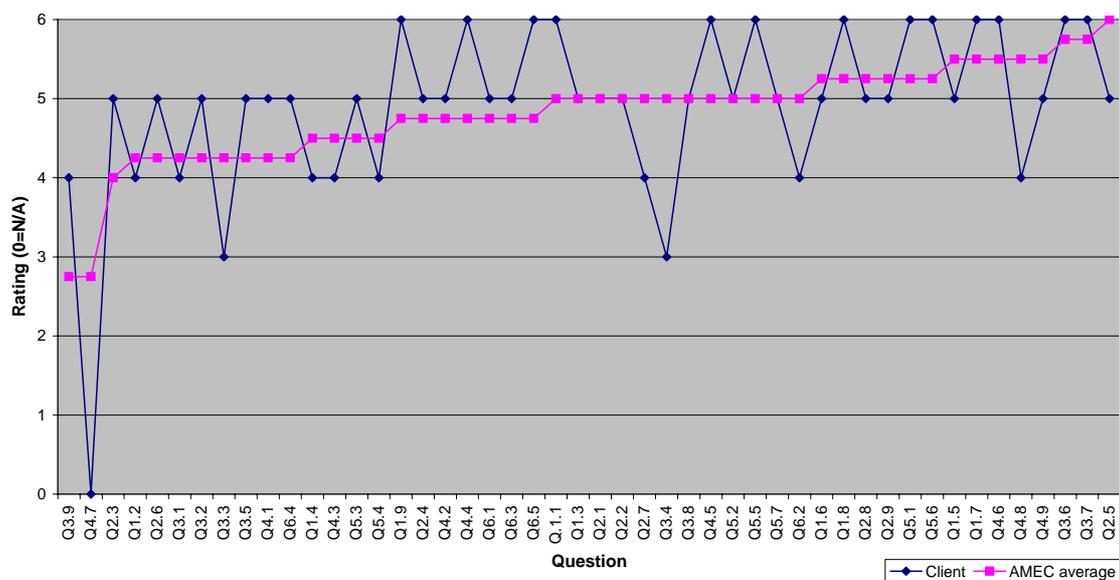


Figure 6 Shell ONEgas: Client and average AMEC scores

The scores were mainly very positive and with no significant differences between client and contractor. This appeared to reflect the really striking efforts to make the partnership work and, although it was still relatively early in its formation, the joint recognition of those areas needing more development.

Q3.9 My organisation was pleased with the project's H&S performance

AMEC was pleased with the effort their effort, but not with the results, even though the incidents had all been minor.

Q4.7 Personal incentives for staff and operatives are effective in improving H&S

Once again the general view was that financial rewards for individuals were inappropriate and H&S should be a natural part of the job. There was support for recognition for teams, a “pat on the back” for individuals and donations to charity based on achieving milestones.

Q3.3 Working together with AMEC we have identified total cost improvements

This formed part of the basis on which the performance was measured, but the client didn't consider that improvements in costs had been achieved yet..

Q3.4 KPIs drive the ethos of the project

The client felt that they were a benchmark and a measure, but although they provided a focus for discussion and improvement, they did not drive the ethos.

6.3.7 Summary

The broad picture from the scoring with Dwr Cymru Welsh Water, Huntsman, Lilly, Highways Agency and Shell ONEgas shows a very high level of agreement with the general relationship statements and confirms the benefits achievable in terms of H&S as a result of this approach. Some of the Shell ONEgas scoring appears to reflect the belief that results, both generally and in H&S, will improve further as the relationship continues to develop.

Network Rail's somewhat lower scoring stands out in comparison with the other projects. This is consistent with the disappointment that was generally expressed at the move away from collaborative working, experienced in the Route 7 Alliance, towards lowest price bids for individual projects. Although H&S was still a priority with both organisations, it was more an approach of “you do this and I'll check it” rather than “we'll tackle this together”.

The scoring of Q4.4 “Within the partnership authority is delegated so that people can act on their own initiative regarding H&S” was often at variance with the comments. This was due to differentiating between having the authority to change established rules or procedures, which was rejected, as against authority to question or stop work if a situation was deemed dangerous, which was encouraged.

7 RECOMMENDATIONS

7.1 LONG TERM PARTNERING

There was overriding support from those interviewed for the advantages of long term partnering agreements.

Quite apart from the general business benefits identified in this report, the openness, integration and sharing that are part of such arrangements do create a positive joint approach to H&S that has led to its improved performance. There was consensus across the projects that there was a better focus on H&S, not necessarily as a result of working with the individual client or contractor, but by the very act of working together on H&S issues.

The formation of collaborative contracts that foster this approach is therefore recommended. It is clear, however, that time and effort is required and it is necessary for all parties to work hard at developing a partnering culture throughout the projects or services, so wherever appropriate and possible, long term partnerships are preferred. It is essential that the parties work together as one team with agreed common goals.

One of the key messages coming out of the interviews was the importance of effective leadership. The process of changing behaviours and values to those required in a partnering culture is a deep seated one. There will be many challenges along the way, which will test individual resolve and the strength of the relationship. At these times, in particular, strong leadership focused on the common objectives is critical to success.

Total commitment from the top must be demonstrated and reinforced at every level of management through to the workforce so that there is no doubt about the behaviour that is expected. This message must be communicated at every appropriate opportunity and must be seen to be operating in practice – action, not just words.

7.2 H&S ENVIRONMENT

The importance of assessing H&S issues during the prequalification and tender process was stressed and it was suggested that this should form a large part of the quality element.

The study has produced clear intuitive evidence that a good H&S environment facilitates good business performance. It was certainly confirmed that bad H&S will lose contracts. In particular, Dwr Cymru Welsh Water considered that “people see now that health and safety can actually contribute to business success. It impacts on your reputation, not just financially, but the way people perceive the organisation.”

Once again the need for strong leadership, commitment by management and good communication was emphasised by all the participants. In order for the workforce to take H&S more seriously themselves, they must receive the unequivocal message that unsafe practice will not be tolerated and, most importantly, they must see that message translated into action at all times.

Attention was drawn to the need for a continuous process of education so that everyone realises they have a personal responsibility for their own safety and that of their colleagues and behave accordingly. All personnel must also have confidence that, if they have genuine H&S concerns, there is an effective mechanism for reporting, investigating and taking appropriate measures, which they are encouraged to use.

There was a strong feeling that in addition to the moral requirement for good H&S practice, there is a business benefit in that if employees believe the company cares about them, they will give more back. It is recommended that all construction and service companies take cognisance of this finding.

7.3 PLANNING

The study supports that overall planning for projects should start as soon as possible and this should include H&S planning. Further, the planning should be undertaken by a joint team of the client, contractor and major sub-contractors. Planning for the 50 day Huntsman shutdown commenced one year before the event took place.

Adequate time must then be allowed to plan any specific task, including the H&S implications. There was evidence that some clients were forcing urgent jobs onto the contractor leading to rushed planning and H&S risks.

7.4 TRAINING

7.4.1 Induction

Induction training for personnel joining projects is an accepted practice. Value can be added to this training by:

- Holding a test at the end of induction training to check for understanding but also to check, with sensitivity, for literacy in reading method statements and safety notices
- Designing inductions that are relevant to the tasks or areas that will be relevant; for example different levels would be appropriate for visitors, those with access to and working on general areas of the site or those in high risk restricted areas
- Ensuring that delivery drivers and postmen, for example, are included

7.4.2 Site-specific and role-specific H&S training

The practice of using training matrices to track the training of individuals against the requirements of their role and the site is to be encouraged. The H&S needs of a transient or occasional workforce (short-term sub-contractors and labour agency personnel) require special attention and policing, particularly if they arrive en-masse for, say, week-end possessions.

At Huntsman the client drew attention to the difficulty AMEC faced with personnel they only employed for a few weeks and expressed the desire that overhaul clients get together to provide some continuity as these people went from project to project with different employers. Ideally sub-contractors and agency personnel should be given the same level of H&S training as AMEC direct personnel. It is not clear that this was always the case in the projects under review.

7.4.3 Toolbox talks

AMEC makes extensive use of toolbox talks which were held at varying frequencies depending on the changing circumstances on the project and the complexity of the activity.

At Dwr Cymru Welsh Water and Shell ONEgas, foreman and supervisors were specifically trained to deliver these talks effectively so that they became more than just a “chat with the lads”. At Huntsman senior managers from the client and AMEC delivered one of the talks each

week and elsewhere speakers included suppliers of PPE and plant and occupational health specialists. All these practices are recommended.

As well as reinforcing standard H&S messages (such as those in the safety manuals) toolbox talks should be continually updated to reflect current site issues, incidents, output from safety meetings and reports from other projects.

7.4.4 Behavioural training

The introduction by AMEC of behavioural training to understand the reasons behind and to rectify accidents from unsafe behaviour by individuals is welcomed and may well represent the next step change in H&S performance.

7.4.5 Occupational Health

Likewise the introduction of Occupational Health “training” and support has been received enthusiastically by the workforce. This includes addressing occupational health issues during induction and other training and the presence of a full-time occupational health nurse on site.

It supports the overall culture towards H&S but also promotes personal welfare, personal hygiene and general health monitoring. These services, which at present are generally only provided on the largest sites, are open to everyone and are paid for by the project.

More time is lost due to industrial ill health than from accidents and in future more consideration should be given this aspect of health and safety.

7.5 METHOD STATEMENTS

Method statements are now commonly produced for most key activities on sites, but the standards required by AMEC procedures are most impressive.

They are based on site specific risk assessments, often with input from the operatives involved, which are attached together with any permit to work requirements. They are often broken down into Construction Operations Procedures that are relevant to the particular part of the activity that the gang is undertaking.

Before work commences the requirements are explained and all those involved sign to confirm they have received the details and understood them.

These simple, but effective procedures should be put into wider practice.

7.6 H&S PRACTICES

Some of AMEC’s H&S practices are exemplary and could form the basis of national standards for construction projects and services. It is recommended that HSE consider this proposition. These practices are detailed in the Project Reviews and the Overview of Contractor Approach. They include:

- “Stop and Watch” or “Don’t Walk By” encouraging everyone to take an active role
- The “football card” scheme for dealing good and bad H&S behaviour is a good one and should be more widely used

- In common with oil and gas industry practices, new starters or occasional visitors to rigs and sites are identified through wearing green hard hats, in recognition of their vulnerability.
- Helmet stickers are issued when induction and safety training are completed
- The introduction of hazard identification drawings to ensure that residual risks are clearly communicated to the site team and the eventual maintainer
- Robust procedures to deal with interfaces as practiced, for example, at Dwr Cymru Welsh Water where signed records are maintained of plant operations personnel who have been trained at handover

With H&S promotion and awareness, care must be taken not to cause complacency through over-exposure as noted by AMEC at ONEgas.

7.7 INCIDENT ANALYSIS

There is much to be gained from analysing incidents, including near misses and non-conformances. Along with regular and formal H&S monitoring, the information gained from this analysis can be used to prevent more serious incidents occurring. However, a reasonable balance must be maintained between the time spent in analysing what has happened and that dedicated to prevention.

As an example at Dwr Cymru Welsh Water, more manual handling injuries were found to be occurring at one point than any other. So a number of supervisors were given manual handling training to in turn train the individual operatives. As a result of that, the figures for manual handling incidents were reduced almost to zero.

Levels of reporting near-misses and non-conformances need to be improved on some of the projects, but this was recognised and was being addressed.

There was limited factual detail on the cost and time impact of near misses, minor incidents and accidents and even serious ones, although it was appreciated these would be significant. It is recommended that more research is carried out into these aspects to help demonstrate the actual cost of poor H&S to the wider industry.

7.8 AUDITING

The regular auditing of H&S practices on projects is essential and should be aimed at engaging everyone in continuous improvement.

Audits are normally carried out by H&S teams from the client or contractor's Head Office or by independent organisations. However, the practice of cross auditing by other members of the Dwr Cymru Welsh Water Alliance appeared particularly effective and worthy of greater use. The recognition of extent to which an individual site shares its H&S best practice with others is innovative and valuable.

7.9 KPI's

KPI's are recommended as a performance measurement and monitoring tool. There is some evidence from these projects that this can improve project and H&S performance, but they were not considered to drive the ethos. A distinction needs to be drawn between lagging indicators such as accident frequency ratios and leading indicators such as the H&S plan which have yet to happen. Both types of indicator have their role with the former feeding into the latter.

To gain the full benefit, KPI and other target scores do need to be widely publicised to all stakeholders and there should be greater efforts in this direction.

7.10 INCENTIVES

Personal financial incentives for good H&S performance were almost universally rejected. It was considered that recognition of exemplary individual H&S behaviour through praise or a “pat on the back” was far more effective and greatly appreciated.

Donations to charities of the workforce’s choice when H&S milestones are met prove popular and effective. The donation should be funded by the client and contractor to reflect the integrated focus on H&S and accompanied by maximum publicity.

There are schemes that reward individuals with token gifts or shopping vouchers plus a letter from the managing director. One such that is being introduced is based on their safety record. Credits are given for the hours of safe working and deducted if there are unsafe incidents. When the credits reach a certain level they are recognised as described above.

7.11 PEOPLE

The relationship between the client and contractor’s senior manager on site is essential for both business and H&S success. Attention must be paid to ensuring that these two individuals can build empathy and rapport, either by having worked well together in the past or by careful selection.

In addition, consideration must be given to planning their successors against the same criteria. At Lilly the integration was such that it was felt that the next general manager of the service could either come from either company.

Several projects adopted a “best man for the job” approach. This means that the individual most suited to undertake a task or role is selected regardless of whether he is the client or contractor’s employee and regardless of history or tradition as to who has undertaken the task or role in the past. As well as providing business benefit through flexible resourcing, this practice also assists with team integration and creating a joint sense of purpose.

The co-location of client and contractor’s project teams also greatly supports integration and motivation. This should be extended to other key players such as designers and specialist sub-contractors wherever possible.

The VOICE process used by AMEC is a really effective tool for motivating the workforce and gaining their buy-in to change and is extended to include key sub-contractors. One of the interesting and effective activities that VOICE committees undertake is going to other sites to carry out hazard spotting.

Such initiatives that challenge defaulting colleagues and ensure opportunities exist for suggesting H&S improvements should be encouraged. Above all, the message that final responsibility for working safely rests with the individual must be constantly reinforced.

7.12 CULTURE

Reference was made by a number of interviewees to the different level of H&S culture in each industry and the commitment of AMEC to their own high standards. There ought to be more

prominence given to imparting the best of these expectations and attitudes to the less advanced sectors.

Within partnerships and indeed within any organisation or project, there is a need to establish an H&S culture, not just a set of rules. That way, H&S becomes embedded. This is fundamentally a change programme, starting at the top and requiring all the well-established practices of change management.

The workforce must be encouraged to report near-misses and non-conformances and to make positive suggestions for H&S improvements. A no-blame culture is a strong facilitator for improved H&S performance with people more likely to admit mistakes and near-misses. Whilst it is not an easy culture to establish, managements should work hard to do so with good communications and, in particular, with behaviour that reinforces the culture.

A zero tolerance policy should always be adopted for H&S. By concentrating on the minor incidents and accidents lessons are learned that will reduce and possibly eliminate the serious ones.

7.13 LEARNING

The corollary of “no-blame” is learning from incidents and experiences – good and bad. It would appear that more formal processes need to be devised for capturing this learning, such as the continuous improvement register at the Highways Agency and the central best practice database maintained by Huntsman through which H&S activities can be accessed either by title or when in the process they should be put in place. These processes should be made easier with the support of modern technology.

The sharing of H&S resource and knowledge between client and contractor is to be encouraged. It is the one area where there should be complete openness, no commercial sensitivities, no resource gaps and no budgetary constraints on any project.

The next stage is the dissemination of this learning across the project and to wider stakeholders. In particular, a “First Alert” system, whereby any H&S incident or issue is promptly and widely circulated across the contractor and client organisations and to the wider industry is to be encouraged. Another example is Shell Europe’s Integrated Service Contractors meetings to exchange safety related information even though they are direct competitors.

As noted above, the practice used at Dwr Cymru Welsh Water whereby H&S audit scores are dependent not only on the contractor’s performance, but the extent to which best practice has been shared with other partners is highly commendable.

Most projects depend heavily on sub-contractors and dedicated workshops, on away days if possible, to impart and obtain H&S best practice is to be encouraged.

The appointment of dedicated continuous improvement managers on large projects is also recommended.

7.14 INNOVATION

It was considered that innovation in design, technology and methods of construction could significantly reduce H&S risk and, subject to stringent and appropriate testing, was therefore to be encouraged.

APPENDICES

APPENDIX 1 PROJECT PROFILE QUESTIONNAIRE



Health and Safety Executive

Client/Contractor relationships in managing
health and safety on projects

Project Profile Questionnaire

Project name

Partnership Sourcing Ltd

Irwin House
118 Southwark Street
London SE1 0SN
020 7202 9400



Department of Trade and Industry



Yes / No answers with comments below

<i>Cost</i>	
Was the contract on a fixed price basis?	
Was the contract performance based?	
Did the project meet its budget profile?	
Was the cost of safety a client consideration?	
Were incentives in place for H&S targets?	
Was there a project budget for H&S?	
Was there adequate provision for safety equipment?	
Was there adequate provision for safety training?	
Was operational safety factored into overall cost?	
Was there a direct cost as a result of H&S incidents?	
Was there an indirect cost as a result of H&S incidents?	
Were high contingencies included for performance risk?	

Comments

Yes / No answers with comments below

<i>Programme/planning</i>	
Did the project have a fixed time schedule?	
Was completion a major factor in the contract performance?	
Were there sectional completion dates	
Was the project completed on time?	
Were there delays due to H&S issues?	
Was the client involved in project planning?	
Did safety factors form part of the project planning process?	

Comments

Yes / No answers with comments below

<i>Processes/procedures/methods</i>	
Were there clearly defined procedures?	
Was the client involved in reviewing procedures?	
Were processes validated against cost and time?	
Did the client identify process issues needing change?	
Have any processes been changed as a result of this project?	
Were business processes discussed with partners?	
Was H&S incorporated in process reviews?	
Was implementation reviewed for H&S requirements?	
Was H&S regularly discussed with client?	
Was there shared responsibility with client for H&S issues?	
Were there clear procedures for reporting accidents to sub-contractors employees?	
Was there a risk management programme in place?	
Was the client part of the risk management review process?	

Comments

Yes / No answers with comments below

Resources	
Were resources a major factor in the project?	
Were resources shared with client?	
Were adequate resources available when required?	
Was there a skills shortage in any sector of the project?	
Were roles fully defined against the business processes?	
Were major activities subcontracted to third parties?	
Were a high proportion of resources subcontracted?	
Was the client involved in defining skill levels and safety training?	
Was the client involved in safety management?	
Was effective training given for H&S requirements?	
Was H&S training provided for sub-contractors?	

Comments

Yes / No answers with comments below

Specifications	
Did the client impose specification standards?	
Were specification changes agreed with client?	
Did specifications constrain performance?	
Were all specifications reviewed for H&S implications?	
Did the client specify H&S requirements?	
Did you have a joint H&S review programme?	
Could better products have been used to improve H&S?	
Was there a project focus on sustainability?	

Comments

Yes / No answers with comments below

Performance	
Did the client ask for higher levels of performance	
Did the client generally accept project performance?	
Was performance constrained by cost issues?	
Was performance constrained by time issues?	
Was performance constrained by quality issues?	
Was performance a risk management issue?	
Was performance risk shared with the client?	
Was performance measured by KPIs	
Were H&S KPIs incorporated in the performance measures?	
Was performance constrained by H&S considerations?	

Comments

APPENDIX 2 PROJECT REVIEW QUESTIONNAIRE

PROJECT REVIEW		AMEC - Client	Side 1	AMEC					
1	The business relationship			1	2	3	4	5	6
1.1	There is a joint vision for the future that gives an overall direction to our work.								n/a
1.2	Client and AMEC 's goals and vision motivate people working in the partnership.								
1.3	Together we are good at responding to changes in the business environment.								
1.4	Client makes decisions based mainly on considerations other than the 'bottom line'.								
1.5	Within the project partnership, people know what needs to be done to meet H&S requirements								
1.6	Together the organisations are good at managing H&S issues								
1.7	The organisations have similar requirements and expectations in respect to H&S.								
1.8	Client closely monitors H&S performance against KPIs and takes appropriate action								
1.9	Procedures ensure that there is up-front planning for H&S								
2	How we work together			1	2	3	4	5	6
2.1	Client and AMEC openly share financial & other information so that progress against joint goals can be measured.								n/a
2.2	When disagreements occur, Client and AMEC work hard to achieve solutions that are fair to both.								
2.3	Client invests sufficient staff resources in the partnership to achieve success.								
2.4	Client is open and honest with us.								
2.5	When there are H&S issues everyone works hard together to achieve solutions								
2.6	Client invests sufficient resources in the project to meet H&S best practice.								
2.7	H&S procedures on the project predominately follow my organisation's standard procedures								
2.8	Induction procedures reflect the H&S risks on the project								
2.9	Tool box talks are continuously revised to address current issues with the operations								
3	Adding value			1	2	3	4	5	6
3.1	Sharing knowledge within the partnership has enabled improvements in performance								n/a
3.2	Within the partnership we have been able to share resources								
3.3	Working together with Client we have identified total cost improvements								
3.4	KPIs drive the ethos of the project								
3.5	As a result of working with Client we can give a better focus to H&S								
3.6	Within the project we promote H&S at all levels to achieve best practice.								
3.7	We see the partnership approach as a positive step towards improving H&S performance								
3.8	Through working with Client we have implemented changes in our business processes to improve H&S								
3.9	My organisation was pleased with the project's H&S performance								
1 - strongly disagree; 2 - disagree; 3 - disagree a little; 4 - agree a little; 5 - agree; 6 - strongly agree; n/a - do not know enough to express any opinion									

PROJECT REVIEW		Client - AMEC		Side 1		Client						
1	The business relationship					1	2	3	4	5	6	n/a
1.1	There is a joint vision for the future that gives an overall direction to our work.											
1.2	Client and AMEC 's goals and vision motivate people working in the partnership.											
1.3	Together we are good at responding to changes in the business environment.											
1.4	AMEC makes decisions based mainly on considerations other than the 'bottom line'.											
1.5	Within the project partnership, people know what needs to be done to meet H&S requirements											
1.6	Together the organisations are good at managing H&S issues											
1.7	The organisations have similar requirements and expectations in respect to H&S.											
1.8	Client closely monitors H&S performance against KPIs and takes appropriate action											
1.9	Procedures ensure that there is up-front planning for H&S											
2	How we work together					1	2	3	4	5	6	n/a
2.1	Client and AMEC openly share financial & other information so that progress against joint goals can be measured.											
2.2	When disagreements occur, Client and AMEC work hard to achieve solutions that are fair to both.											
2.3	AMEC invests sufficient staff resources in the partnership to achieve success.											
2.4	AMEC is open and honest with us.											
2.5	When there are H&S issues everyone works hard together to achieve solutions											
2.6	AMEC invests sufficient resources in the project to meet H&S best practice.											
2.7	H&S procedures on the project predominately follow my organisation's standard procedures											
2.8	Induction procedures reflect the H&S risks on the project											
2.9	Tool box talks are continuously revised to address current issues with the operations											
3	Adding value					1	2	3	4	5	6	n/a
3.1	Sharing knowledge within the partnership has enabled improvements in performance											
3.2	Within the partnership we have been able to share resources											
3.3	Working together with AMEC we have identified total cost improvements											
3.4	KPIs drive the ethos of the project											
3.5	As a result of working with AMEC we can give a better focus to H&S											
3.6	Within the project we promote H&S at all levels to achieve best practice.											
3.7	We see the partnership approach as a positive step towards improving H&S performance											
3.8	Through working with AMEC we have implemented changes in our business processes to improve H&S											
3.9	My organisation was pleased with the project's H&S performance											
1 - strongly disagree; 2 - disagree; 3 - disagree a little; 4 - agree a little; 5 - agree; 6 - strongly agree; n/a - do not know enough to express any opinion												

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