

Evolution of the Business Environment Surrounding the UK's Nuclear Site Cleanup Program

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ABSTRACT

In April 2005 twenty civil nuclear sites in the United Kingdom became the responsibility of the Nuclear Decommissioning Authority (NDA), a new organization created by the British Government to manage the cleanup of these sites. As a key part of this transition, the NDA became the owner and manager of these sites, which formerly were owned by the site operators, British Nuclear Fuels Limited plc (BNFL) and the United Kingdom Atomic Energy Authority (UKAEA). This was one of the most significant events in the history of the United Kingdom's nuclear industry and represented a true sea change, affecting many aspects of life and business on and around these sites as well as nationally.

The NDA's budget for the cleanup of the twenty sites and the management of the overall cleanup program is approximately £2 Billion per annum, almost \$4 Billion. It is important to note that approximately half of this amount is spent with the supply chains which serve the management and operations contractors, including £500 million at Sellafield alone. Additionally, the site management and operations contractors receive most of the £2 Billion through contracts between the NDA and the various site management companies. This represents a lot of government money moving through contracts between entities, which invokes procurement and contracting rules and regulations, that while not new, have not previously been this broadly applied to nuclear site cleanup activities throughout the UK. The current estimate for the total life cycle cleanup costs for all twenty civil nuclear sites is £56 Billion, a figure that is likely to increase further.

The first rules to mention are the European Union Procurement Guidelines, which are designed to help ensure that procurements involving government funds are conducted in an open, fair, and transparent environment. While it is difficult to argue with the intent of these rules, at least for now they are having a slowing down effect on placing contracts via the major procurements being conducted in support of the nuclear site cleanup program.

The next most powerful influence is the NDA itself, which has oversight responsibility for procurements conducted by the site management and operations contractors. The NDA must, of necessity, maintain some level of review over major procurements, but how best to do so with a limited number of staff, without slowing down the awarding of contracts?

More dramatic in their impact on the UK's nuclear industry will be the competitive procurements to be conducted by the NDA to select the best site operators for the twenty sites. These major

procurements, while common in the USA and elsewhere, will be new to the NDA's nuclear site cleanup program. Considering the large contract values expected, the procurements should attract some of the best talent in nuclear site cleanup. It is anticipated that these procurements will necessitate contractors to compete at the highest level, leaving no stone unturned to maximize the chance of being selected. Contract awards are expected to be in the range of 100 million pounds to several billion pounds. The first such procurement is currently planned to begin in April 2006, according to the NDA's draft strategy document.

Lastly, the business relationships with local suppliers to the nuclear sites are also changing. These suppliers will be required to compete, primarily for contracts let by subcontractors to the site management and operations contractors, and even by sub-sub contractors, rather than directly from the site management and operations contractors. The benign paternalism previously practiced at some sites by the management and operations contractors should also cease, of necessity.

Many other business aspects will evolve as well, such as contract awards being based on best value, rather than on lowest price or lowest hourly rate. Electronic commerce is expected to become more widely used. Even as late as 2003, little electronic commerce was being utilized at the nuclear sites now being managed by the NDA. Contracting terms are expected to move toward a more commercial orientation, a process already begun.

This paper will examine the changing procurement and contracting environment under the NDA's leadership and will provide information of interest to contractors wishing to win their share (and more) of business in the emerging nuclear site cleanup program in the United Kingdom.

INTRODUCTION

The Government of the United Kingdom, led by the Department of Trade & Industry (DTI) and Her Majesty's Treasury (HMT) have taken a landmark action to see that the twenty civil nuclear sites which have reached or are approaching the end of their useful life will be decontaminated, decommissioned and demolished in a cost effective and timely manner. A Non Departmental Public Body, the Nuclear Decommissioning Authority (NDA) was authorized in the Energy Bill of 2004, and has now come into being. The NDA has taken ownership of the twenty sites and has awarded the initial site Management & Operations (M&O) contracts to the former owners (British Nuclear Group and the United Kingdom Atomic Energy Authority) without competition. It is the announced intent of the NDA to conduct competitive procurements to select M&O contractors for the various sites over the next 6 years. Billions of pounds worth of contracts will be competed in this manner.

Further, the NDA and its top level (Tier 1) contractors are required to comply with the European Union Procurement Directives when competing and awarding contracts. In addition, the Office of Government Commerce (OGC) is expected to exercise its oversight and review authority over major project procurements, including looking at how the EU Directives are followed in addition to seeing that best practices are followed by the contracting entities. OGC oversight of a major project is applied primarily to activities that occur before the contract to deliver that project is let.

The supply chains serving the twenty nuclear sites will see considerable change as a result of the competitions, and because the Tier 1 contractors must comply with the flowdown requirements of NDA contract terms, conditions and procurement directives, passing these on to Tier 2 and Tier 3 contractors. Tier 1 contractors will find themselves letting fewer but larger contracts, with the Tier 2 contractors letting many more contracts than before, comprising the majority of the contracts let to the supply chain.

The net result is major change to the business environment in and around the twenty nuclear sites. This paper examines these changes in more depth and discusses the consequences thereof as well as what is driving the changes.

EUROPEAN UNION PROCUREMENT DIRECTIVES

European Union (EU) Procurement Directives will apply to the M&O contract competitions because Government funds are involved. The EU Procurement Directives also apply to contracts competed and let between the Tier 1 (prime) contractors and their subcontractors, known as Tier 2s. The intent of the EU rules are to ensure a fair, open, transparent procurement process that provide qualified contractors an equal chance to be successful. The rules are intended to create and maintain a level playing field. For those used to doing business in the USA, a piece of good news is that these rules are much less prescriptive than the US's Federal Acquisition Regulations, which is not bad!

The European Union Procurement Directives, promulgated by the EU Government are in force throughout all EU countries. They require public disclosure of upcoming procurements in adequate time to allow firms to make bid/no-bid decisions and to prepare their bid. Disclosure of the criteria to be used for contract award is also required, while allowing adequate time for tender preparation. Firms have the right to challenge awards that may be considered unfair or inappropriate. There are also guidelines which help to ensure that competitions are fair and open and thus not decided arbitrarily. Geographic location for example is not allowed as selection criteria- a factor we sometimes experience in US DOE procurements.

Notice of upcoming procurements must be published in the Official Journal of the European Union (OJEU), not different in principle from the Commerce Business Daily. The OJEU is accessible on the web, at: www.ted.publications.eu.int/official. There are also commercial services that are available to help search the OJEU postings for specific procurements of interest.

How has complying with EU Procurement Directives changed how business is done? To begin, the Tier 1 contractors as well as the NDA had to learn what the Procurement Directives specify and how the requirements are to be implemented. Procedures and systems had to be prepared and personnel trained on them. Additional time has to be allowed for OJEU announcements to be prepared, posted, and responded to. Much more advance planning is necessitated, which involves the operations and engineering functions as well, since these are the major internal customers of the procurement and contracting functions. Additionally, with the NDA mandated Near Term Work Plans (NTWP) and Life Cycle Base Lines (LCBL) for each site, Tier 1s are required to plan their activities, perform make/buy analyses for major procurements, and publish

the NTWPs on their web sites, with major procurements clearly delineated. They are also required to advise the supply chain of planned procurements.

While the planning process is relatively easy to describe it is not so easy to do and to get right. At the more complex sites, the Tier 1s are still working to get the NTWPs and LCBLs right and responsive to NDA requirements and public expectations, however progress is being made! The reader is referred to the NDA, BNG, and UKAEA web sites to view the actual documents for each site:

www.nda.gov.uk

www.britishnucleargroup.com

www.ukaea.org.uk

NUCLEAR DECOMMISSIONING AUTHORITY REQUIREMENTS

To manage their rather substantial responsibilities, the NDA has promulgated a set of management directives. These rules primarily govern the program management, contract management, procurement and financial management aspects of the Tier 1 contractors' work. They also provide guidance regarding allowable costs and use of affiliate companies by the Tier 1 contractors. These documents are available on the NDA's web site. US readers will note that there is a distinct US DOE flavor to these rules, not unexpected since they were heavily influenced by Americans from Bechtel working as consultants and advisors to the NDA and its predecessor, the Liabilities Management Unit (LMU). As mentioned, one of the documents addresses the awarding of work to affiliate companies of the Tier 1 contractors. The NDA is requiring that all work by affiliates be competed within two years from April 2005. This represents a substantial change in the way business has been done in the past. Being owned fully or in part by a Tier 1 contractor formerly represented a significant advantage in bringing in work, but no longer.

The NDA staff also reviews and approves selected Tier 2 subcontracts, as well as maintaining broad oversight across all supply chain activities. Despite everyone's best intentions, obtaining approval of Tier 2 contracts by NDA has added some additional time to place the contracts. This may not always be the case, especially as NDA gains experience as an organization and achieves full staffing, planned for April 2006. One effect of the added approvals has been to reduce the amount of work being awarded to the supply chain. While this may seem like a small matter, it actually isn't. Many companies at the Tier 3 level have had to lay-off staff, and some have actually had to close their doors. There is good news, however, that recently orders have started to come through and that the more successful small companies have tightened their belts, reduced their cost of doing business, and are now ready to start growing again.

As will happen in difficult times, smaller to medium size contractors have joined together into trade associations to have a stronger voice with the NDA and the Tier 1s and to help one another develop new business through outreach into other markets. The West Cumbria Business Cluster (WCBC) is one such organization which is growing in membership and influence. Their web site is: www.westcumbriabusinesscluster.org.uk. As an example of how WCBC is developing a more global view, the organization is building ties to a similar US entity, the East Tennessee

Environmental Business Association (ETEBA). This is another good example of US/UK cooperation in nuclear site cleanup markets.

THE OFFICE OF GOVERNMENT COMMERCE

As mentioned earlier, another UK Government body that has a role in the contracting environment is the Office of Government Commerce (OGC). OGC's role is to see that best practices are used in the planning, validating, and costing of major projects, including the letting of a Government funded contract(s). OGC, a part of Treasury, has promulgated good practice guidelines and has a recommended process for the planning and management of projects, known as the Gateway Process. OGC personnel meet with contracting entities and review the plans being used to conceive, validate, plan, estimate and contract for a project. OGC reviews may run over one to two days for major projects. Information on OGC can be found at: www.ogc.gov.uk. OGC involvement can impose another level of review and oversight in the nuclear site cleanup business environment. The OGC Gateway process is fundamentally good business practice and probably should be used in any case, in some form. The OGC reviews are meant to help, but may take a significant amount of time. Another view is that the senior management of the organization should be performing the project reviews and seeing that business is conducted according to best practices. However, while that should be done in any case, and usually is, the OGC may still be involved. One would hope that if senior management does its job well, there would be few or no adverse comments from the OGC reviews.

The Office of Government Commerce reports to the Chief Secretary to the Treasury. It is an independent office of the UK Treasury that is focused on improving efficiency of civil government procurement and achieving best value for money by promoting private sector involvement across the public sector. It was set up to deliver its value for money objective through creating a center of excellence in procurement.

So where was OGC all along? Firstly, it is an organization that is still coming into its own. It has established guidance for the planning and formation of major projects based on industry best practices and promulgated that information. Companies can become certified by OGC as practitioners of those best practices, upon making application and undergoing a review by OGC. So why hasn't OGC been more active in the nuclear industry heretofore? Seems they weren't because either they weren't invited in or didn't have the time or inclination to insist that they be. Certainly the nuclear industry will benefit from embracing the OGC best practices.

TIER 1 CONTRACT COMPETITIONS

The competitions for the site Management & Operations (M&O) contracts will send shock waves throughout the UK nuclear industry. Never in the UK nuclear industry has there been a series of "big money" contracts awarded through a series of competitions as are planned by the NDA! From the smallest, first (M&O) contract for Drigg (and possibly the Dounreay Low Level Waste Site), estimated to be worth less than £30 million per year to the massive Sellafield contract, worth at least £1 Billion per year, there will be a market created such as has rarely been seen in the nuclear industry, anywhere. The first Invitation to Tender, for Drigg is currently scheduled for July 2006, with a prequal phase planned for April 2006. There is some doubt as to

whether these exact dates will be met, but in any case the start of the competitions is nearing and it is none too early for the likely competitors to be putting their teams together and developing their capture strategies.

When one looks at the NDA's published draft competition schedule, which has the contracts for all twenty sites being competed within the next six years, it is easy to see that there will in all probability be a feeding frenzy within the major contracting community. Going a step further, it appears that there is not sufficient contracting capacity within the native UK contracting community to bid and win all of this work. Given this, the multinational contractors that work in nuclear site cleanup in the USA and elsewhere will likely seize the opportunity to pursue this work. In all likelihood many will be successful.

It may be worth noting here that there is a concern among some UK contractors that foreign firms will come in and "steal" their nuclear site cleanup business. While this is perhaps an understandable fear, it is groundless. Any foreign firm, even one from Western Europe much less the United States will need one or more British firms as a teaming partner(s) to perform the majority of the work, to bring knowledge of the UK regulatory scheme and provide familiarity with local labor, the local supply chain, stakeholders, and many other factors. It is at least partly through this international cooperation that the UK nuclear industry will develop more and prosper as forecast in the DTI's White Paper in 2002.

In the White Paper, "Managing the Nuclear Legacy" published on 4 July 2002, one of the stated objectives for forming the NDA and expediting the cleanup of the twenty nuclear sites is the desire to create a robust, competitive nuclear cleanup industry in the UK, where UK firms will be strengthened and able to compete in the world nuclear market. With several large competitions at the Tier 1 level, the larger Tier 2 competitions, and the numerous Tier 3 and Tier 4 competitions, all funded through the £2 Billion per annum NDA budget, it is very likely that this objective will be achieved.

The competitions for the Tier 1 contracts will probably be between teams or consortia made up of a combination of British, American, and in some cases European or Asian firms. As such, and considering the large value of most of these contracts, the competition is likely to be fierce. American firms are most familiar with M&O contract competitions, thanks to their many years experience in competing for US DOE and DOD prime contracts. It is anticipated that the US firms will "pull out all the stops", including the use of capture consultants and proposal (tender) development companies during the competition for the same reasons they do so in the USA- a desire to maximize their win potential. These are not common practices in the UK nuclear industry at present, but perhaps soon will be.

It is often said that the most important factor in winning a large contract is the team that is proposed. Next most important is who is the top person that will head up the proposed organization? Third perhaps is having the customer (NDA) feel comfortable that the selected contractor will be the right choice and will bring credit to the NDA, post award. These factors are all vital, and are above and beyond simply submitting a compliant offer. Proposals that are easy to read and easy to score (well) will also be important to winning these contracts.

TIER 2 CONTRACTING ENVIRONMENT

The Tier 2 contractors are expected to become much more prominent in the nuclear site cleanup industry being formed by the NDA. As mentioned earlier, the Tier 1s are likely to let fewer, but larger contracts. The Tier 2 contractor community will be the recipient of these. The Tier 2s will in turn have to let most of the contracts to the sub-tier, smaller suppliers. In the past, the Tier 1s let most of the contracts. This shift in roles should have a beneficial effect on the nuclear site cleanup industry in the UK, as the procurement workload will be spread across more contractors (the Tier 2s), firms that in most cases have commercially oriented contracting and procurement teams. The net result should be a reduced transaction time to get orders placed, a broader base of small to medium enterprise (SME) support, and decreased time to get needed work underway.

Tier 2 contractors must also be compliant with NDA requirements including contract flowdowns and measures to ensure fair, open and transparent procurement processes. Tier 2 contractors are more likely to have implemented “e-procurement” processes, something the current Tier 1s have been slow to implement, although they are now conducting some e-commerce.

The Tier 2 contractors are the major project delivery entities in the UK and as such are the backbone of UK industry. The larger of these are also capable of bidding in a Tier 1 role for certain projects, and/or being key components of consortia to bid for larger contracts. They have had to compete with each other over the years and as such have reduced their cost of doing business and “sharpened their tools”. These are process improvements the current Tier 1 contractors are just now coming to grips with.

The bottom line is that when the sorting out is over and the several site M&O contracts have been let by the NDA, there is a very good chance that DTI will have achieved its objective of creating a strong and vibrant nuclear cleanup industry in the UK. Much of the strength will in all likelihood be based on the competence and enhanced capabilities of the Tier 2 contracting community.

TIER 3 CONTRACTING UNDER THE NDA:

The Tier 3 and Tier 4 contractors comprise the majority of the supply chain, measured by number of individual companies involved, not business volume. These range in size from companies not quite large enough to bid Tier 2 work to the “mom and pop” enterprises and sole trader entities. They provide an amazing range of goods and services, including: office supplies, IT services, repair of vehicles, catering services, taxi services, specialty design and consulting, and a host of others. These firms are in effect the foot soldiers of the nuclear cleanup industry, without them, the work simply would not get done.

How will the business environment change for these firms? One big change is that they will be contracting primarily with the Tier 2 contractors and with each other, not with the Tier 1s. Another change is that they will have to submit competitive tenders for the work they want. In the past, while the smaller firms did some tendering, frequently they were simply awarded work

directly by the Tier 1s, especially if they already had a contract in place. The Tier 1s tended to let many small contracts and purchase orders and there just wasn't enough time to conduct full competitions for all these small orders. It isn't that this was wrong at the time, it wasn't, but it is no longer the way business will be done under the NDA.

In the past also, in some cases the Tier 1s would invest in some of these companies, to help them along, almost like a venture capitalist might. However, with the NDA's affiliates rules in place, it may no longer be advantageous to be partly owned by a Tier 1. This matter should correct itself over time, if good management practice and common sense prevail.

In the way of a closing statement to this section, Tier 1 contractors, when they were the site owners sometimes practiced a form of benign paternalism to aid the local supply chain. This was the way things were done, and it was done for good reasons. Times have changed however, and the Tier 3 SME community must now compete for most if not all of its work. This too will end up strengthening the UK nuclear site cleanup industry, something that can only help the nation as a whole.

CONCLUSION

This is an exciting time for the UK nuclear site cleanup industry. The UK Government has taken a bold and innovative step in creating the NDA. Success in nuclear site cleanup can certainly help to gain public acceptance of new nuclear build. The UK nuclear industry is poised to move into a global leadership position as a result and the global industry is paying attention. Good start!

It is hoped that the next few years will see the maturing of the nuclear site cleanup industry in the UK. The first few Tier 1 competitions will have been completed and/or will be underway and the supply chain will have adjusted to the changes in the market. There is every reason to look forward to a more robust UK nuclear industry, fueled not only by cleanup work, but by the emergence of new nuclear build in the United Kingdom.