

NORTH SEA DECOMMISSIONING CONTRACTING FOR THE KNOWN AND UNKNOWN UNKNOWNNS



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¹ The following have been decommissioned in the UK sector: three installations with large concrete substructures, one with large steel jacket, 15 other steel jackets, seven floating production systems, two subsea production systems, 10 other facilities (loading buoys, flares etc), 16 pipeline programmes. Major decommissioned installations include *West Sole, Brent Spar, Maureen, Hutton TLP, Brent Flare & Anchors, NW Hutton, Frigg MCP-01, Kittiwake Loading Buoy*. Over 400 installations remain, including eight installations with large concrete substructures, 31 with large steel jackets, 214 other steel jackets, 278 subsea production systems, 21 floating production systems, 3,300 pipelines – around 25,000km, <5,000 wells, <200 cuttings piles.

² The subsidiary of Oil and Gas UK which develops and issues standard contracts for use in the UK oil and gas industry.

Only about 7% of all installations in the UK sector of the North Sea have been decommissioned¹. Smaller projects have been executed safely, on time and within budget by a small but experienced group of contractors, and onshore recycling has been carried out in accordance with environmental and waste disposal regulations to the satisfaction of the relevant authorities. However, larger, high-profile projects have been tougher than anticipated, involving serious cost increases, delays, losses and liabilities for the contractors.

Although costs have increased dramatically in recent years for a variety of reasons, this is only part of the picture. Initial experience is that decommissioning projects are difficult to manage because of their inherent uncertainties. In particular, the availability and accuracy of 'as built' information about installations is, at best, limited. Work methods have to be revised. Platforms have also turned out to be unsafe to work on, with the integrity of parts not being as strong as anticipated. Offshore crew may fail to achieve anticipated productivity. Delays can occur in the supply chain. Weather downtime may be greater than planned. Subcontractors may fail to perform. There may be limited availability of heavy lift operators and recycling yards.

Also, platforms were generally not designed for removal, and each installation brings its own challenge. Topsides and jackets involve different issues. The logistics and procedures for removal of topsides require consideration of the integrity of modules, lifting aids, cleaning, waste disposal, cutting methods, salvage and offshore preparatory work. Jacket removal entails cutting, lifting and handling technologies, which heavily depend on the integrity of the jacket. This can be more complex for larger structures, where the height rather than weight may be a restricting factor. Flotation, cutting methods, cutting piles below the seabed and transportation all present challenges.

Numerous processes are involved: plugging and abandonment of wells, cleaning and hook down, removal and/or recycling of platforms, pipelines and contaminants in the surrounding area. Managing the project requires co-ordination of a number of departments and disciplines, including Drilling, Operations, Construction, Subsea, HSE (health and safety at work regulations), Planning, Cost Reporting, Document Control, Procurement, etc. Inadequate project organisation can easily extend the project and increase costs. In particular, concerns have been expressed that the operators' rules, regulations and permit-to-work systems, whilst apt for offshore operations on a live installation or during construction, are not suited to a decommissioning project.

As a result, projects have often been delayed and disrupted. Unfortunately, for some of the contractors involved, lump-sum contracts based on EPIC-type terms (engineer, procure, install and commission) have not been entirely successful in apportioning the risks that have arisen. Although there have been demands for a standard decommissioning contract, LOGIC² has not so far been able to produce one. Indeed, there are obvious difficulties in doing so, and a number of issues need to be addressed.

First and foremost, decommissioning is not the reverse of installation, and there is no schedule incentive such as a 'first oil date' to keep all parties focused. An operator's incentive in a removal project is more likely to be based upon the cost, risk and safety implications.

Further, there is no standardised offshore installation. There are a variety of decommissioning strategies involving reverse engineering, removal of small pieces, and single lifts. The various combinations of pricing and means by which the contractor is to be incentivised in return for sharing the risk of known and unknown unknowns require different approaches. If the contract is on a lump-sum basis, special attention must be paid to terms dealing with the accuracy of tender information, revisions due to delay, unexpected work and stage payments. If the contract is on a measured work basis, thought will have to be given to establishing the applicable norms. If on a reimbursable basis, or time and materials plus mark-up basis, the manner in which the tariffs are to be calculated to reflect risk and reward must be carefully considered.

— **“There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we now know we don’t know. But there are also unknown unknowns. These are things we do not know we don’t know.” (Donald Rumsfeld)**

Defining the work scope will also be important. Is there to be a detailed specification for defined tasks, or a general obligation to remove in accordance with the operator’s abandonment programme? Who is to be responsible for each stage of the engineering, provision of personnel, craft and equipment, decommissioning, removal, disposal or abandonment? Will the operator’s representatives supervise and be able to require changes to the work scope? What duties will the operator have to assist and co-operate in the provision of personnel and equipment?

If information and drawings turn out to be inaccurate, how is this to be dealt with? Will warranties be given by the operator in respect of the condition of the installation and the information or drawings provided? Or will the contractor have a duty to inform itself?

Who will be responsible for obtaining all licences, approvals, authorisations or permits for disposal from the numerous authorities involved?

Crucially, how are the risks of the known and unknown unknowns to be dealt with? Who will bear the additional time and cost consequences, and how are these to be determined? Is there an appropriate mechanism for price adjustment in such circumstances, and if the operator delays the project?

The usual knock-for-knock³ indemnities in relation to property, loss of life, personal injury to personnel and third parties may also need to be adapted. The additional costs of putting something right on the installation may well be contested by the operator. Nearby facilities or pipelines may be owned by different parties and there could be large consequential losses, which the contractor will not want to bear.

Such indemnities will need to dovetail with provisions for insuring these and other risks. There is no standard insurance for decommissioning and removal operations, and a contractor may be presented with a modified CAR (Construction All Risks) cover for physical damage, third-party liabilities, control of well and consequential loss. Wreck removal obligations for dropped objects and contractors’ vessels may also require consideration in light of the contractors’ P&I cover, which may only respond if the wreck is a hazard to navigation or a wreck removal order is issued.

There is also an appreciable risk of residual liabilities in perpetuity arising from abandonment, such as environmental pollution from wellhead seepage, seabed remains, pipelines and onshore disposal of hazardous waste. A contractor will be looking to negotiate adequate exclusions or limitations for direct and indirect consequential losses, or to arrange insurance cover for residual liability risk, environmental pollution risks, loss of contract earnings and/or standby, and political risks.

Just as building the first offshore oil installations opened up new areas of law in the 1970s, the need to remove the older installations in an environmentally acceptable manner is opening up a new industry and a new field of law that will require innovative contracting solutions. Risks unique to each installation need to be fully explored and allocated. Contracting for the known and unknown unknowns will be a challenge. But there is one known. Contracts that do not reflect the realities of a particular project will lead to expensive disputes.

³ In the offshore industry, risk is commonly allocated by means of knock-for-knock contracts. These are contracts under which the parties take responsibility and indemnify one another for loss of, or damage to their own property, or injury or death of their personnel, regardless of fault.



Removal of a jacket