Andreas Dracoulis and Fiona Cain in Energy Voice: Avoiding Cost Overruns in Decommissioning

By Andreas Dracoulis, Fiona Cain | October 5, 2018

RELATED PRACTICES Energy, Power and Natural Resources, Environmental, Offshore Oil and Gas

The UKCS is the largest decommissioning market in the North Sea. There are around 475 fixed facilities, over 10,000 kilometres of pipeline and approximately 5,000 wells. These will all need to be decommissioned over the next 30 years, when they reach the end of their economic life, at an estimated cost of £59.7 billion.

The maturity of the basin and the age of its facilities mean that decommissioning expenditure now represents over 10 percent of total expenditure on the UKCS, with an annual forecast expenditure of £2 billion per year until 2025.

Two years ago, the Oil and Gas Authority, in conjunction with the oil and gas industry, set a target of reducing decommissioning costs for the UKCS by at least 35 percent to £39 billion (in 2016 prices). In June 2018, the Oil and Gas Authority reported that estimated decommissioning costs had already fallen by 7 percent to £55.7 billion. The 2018 Cost Estimate Report on UKCS Decommissioning found that this reduction had been driven by improved planning and execution practices. The report also recognises that the targeted reduction in costs will only be achieved by increased competence and cost effectiveness. Improved cost control and effectiveness has been a key objective for many oil companies and contractors during the recent downturn. As the oil price increases and activity redoubles, it will be essential that cost efficiencies do not ebb away in order to realise this cost reduction target for decommissioning. It is also key that cost overruns during decommissioning are avoided in areas such as unforeseen site conditions and interface risks.

Unforeseen site conditions

Prior to commencing decommissioning, contractors will typically review all the information available on the installation and conduct a site survey in order to plan the decommissioning works and to decide for example whether the topsides removal method should be piece-small, reverse-installation or single lift. The age and condition of the installation may mean that full details are not readily available and where an installation has subsequently been enhanced and modified, the decommissioning process can be more complicated than the original installation would suggest. When it comes to the well, it is important that the well condition is assessed using a light well intervention vessel prior to the campaign to determine whether there has been any changes or deterioration during its lifetime which will impact on its decommissioning.

It is not uncommon for installations, due to their age, to contain hazardous substances such as asbestos. Asbestos was commonly used in the last century for lagging, insulation, etc. Where the asbestos has been poorly managed or recorded and is subsequently disturbed during decommissioning, it can lead to the works being shut down until the asbestos is removed by professionals, with the associated cost consequences.

Decommissioning, particularly in parts of the UKCS, is likely to be affected by the remoteness and harshness of the environment where it takes place, so removal activities are often scheduled to

take place during the summer. This can place limitations on the resources. However, it is not only the location and weather that will impact; subsea ground conditions and reservoir conditions are also critically important to well plugging and abandonment. Issues such as water depth, reservoir type, age and condition of the well must be considered, as well as the possibility of well collapse due to depressurisation.

While it will not be possible to avoid unforeseen site conditions, full planning and allowances for any uncertainties can help to manage possible cost overruns.

Interface risks

There are also interface issues which require careful planning and consideration in order to avoid cost overruns and it is important to consider issues such as:

- The relationship between the various stakeholders in the field. Under UK law, the decommissioning programme is performed primarily by the field operator and licensees on a joint and several liability basis, however such liability can extend to the parties of the joint operating agreements and owners of the pipelines. It is for the parties to determine how the costs should be divided;
- The coordination of different subcontractors to provide project delivery, engineering and offshore construction skills, to perform the works. There has for example been a recent increase in contractors working as consortiums to offer integrated services through a single contract;
- The timing for handing over operatorship to maximise late life production and obtaining decommissioning expertise;
- The potential design risk of adopting modern practices to decommission installations which were built using historic designs.

Decommissioning is a significant part of the work now required in the UKCS as many installations come to the end of their operational life. In order to meet the targeted cost reductions, and minimise the possibility of related disputes, it is important that cost overruns are avoided through consideration of all the issues, careful planning, and employing appropriate contractors.

Originally posted in *Energy Voice* on Oct. 4, 2018.