## All At Sea?

**Helen Bowdren**, partner at Dentons UK LLP, turns her attentions to the opportunities for the waste sector in oil and gas decommissioning...

hell has recently presented its plan for decommissioning the Brent oil and gas field to the UK Government. The Brent field is one of the largest fields in the North Sea, having produced about 10 percent of total North Sea production during the past four decades. Decommissioning the field will be a major infrastructure project, expected to take 10 years.

Shell's plan is being closely watched by the oil and gas industry because it is the biggest North Sea field to be dismantled so far, with hundreds more to follow. The waste industry is also watching with interest because the waste sector has a key role to play in the onshore recovery, reuse or disposal of the offshore infrastructure, once it has reached the end of its operational life.

Decommissioning of oil and gas installations in the North Sea provides a major business opportunity to the waste sector – although it is a commercial boost that has been a long time coming.

Decommissioning activity has been delayed in the UK Continental Shelf, partly because the high oil price between 2011 and 2014 allowed mature fields to keep producing economically. This is no longer the case, given the prolonged period of low oil prices and significant cost pressure on the North Sea industry.

There are more than 250 fixed installations, 250 subsea production systems, 3,000 pipelines and approximately 3,650 wells, all of which must be decommissioned.

As well as Brent, five other decommissioning programs are currently under consultation, with many more expected to follow.

## **Brent Field**

SO WHAT does decommissioning involve? The Brent field is a good

"The materials covered by Shell's programme include approximately 295,000 tonnes of steel, 568,000 tonnes of concrete, 238,000 tonnes of sand ballast and 16,000 tonnes of rock-dump" case study. It is a 50/50 joint venture between Shell and Esso. Shell's draft Decommissioning Plan proposes to plug and make safe the wells, remove the upper parts of the four Brent platforms and remove "attic oil". However, it would leave behind the supporting concrete legs (made of thick concrete reinforced with steel bars), and 64 subsea storage tanks, known as cells, and drill cuttings contaminated with oil.

The materials covered by Shell's programme include approximately 295,000 tonnes of steel, 568,000 tonnes of concrete, 238,000 tonnes of sand ballast and 16,000 tonnes of rock-dump.

With a few very limited exceptions, no wastes or chemicals are discharged to sea; all waste and retrieved materials are returned to shore for reuse, recycling or disposal.

Shell has contracted Able UK Limited to dismantle and dispose of three topsides and the Brent Alpha upper jacket, and this work will be undertaken at the Able Seaton Port (ASP) facility on Teesside.

At the ASP facility, Able will use hot and cold cutting techniques to reduce the height of the jacket and bring the whole structure down to ground level. Material will be segregated into different waste streams for storage and, ultimately, recycling, treatment or disposal. Shell expect that at least 97 percent (by weight) of the removed jacket will be recycled.

## Decommissioning

THE DEPARTMENT for Business, Energy and Industrial Strategy (BEIS) regulates decommissioning of offshore installations and pipelines, with the Oil and Gas Authority (OGA) fulfilling this function on behalf of the Secretary of State.

The UK has legal obligations under the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR). Under OSPAR, operators must completely remove and dismantle oil and gas installations at the end of their operational life, and provide for full removal for reuse, recycling or final disposal of the installation on land. Operators must show how the principles of the waste hierarchy will be met and the extent to which the installation, including the topsides and the materials contained within the installation, will be reused, recycled or disposed of on land.

Any decommissioning plan that proposes to leave equipment in place requires a specific "derogation" to be granted by the Government (and approved by other OSPAR Convention parties). To obtain such a derogation, operators must provide evidence of significant reasons why leaving in place is preferable to reuse, recycling or final disposal on land.

Once onshore, the usual waste regulation will apply. The Environment Agency (in England and Wales) and the Scottish Environment Protection Agency (in Scotland) are responsible for administering and enforcing the waste management controls. Anyone who deposits, recovers or disposes of waste must do so in compliance with the conditions of a waste management licence, or within the terms of an exemption from licensing, and in a way which does not cause pollution of the environment or harm to human health.

Movements of waste from the UKCS to other member states and non-member states would be treated as transboundary movements and regulated as such. Most movements for disposal would be prohibited.

Any transboundary shipment for recovery operations would most likely require prior written notification to, and the written consent of, the competent authorities involved in the shipment.

## Capture The Opportunity

OVERALL, DECOMMISSIONING on the UK Continental Shelf from now until 2025 represents an estimated £17.6bn opportunity, with over 50 percent of this market to be found in the central North Sea. Around 1.1m tonnes of infrastructure are expected to be brought onshore for recycling and final disposal from the UK and Norwegian Continental Shelves between 2016 and 2025.

Operators will rely on the onshore supply chain, including waste management companies, to deliver safe and environmentally appropriate solutions to the complex question of what to do with operational infrastructure at the end of its life. **Tesco Stores Ltd has been ordered** to pay over £8m in fines and costs after pleading guilty to a pollution incident. Between Wednesday 2 July and Thursday 3 July 2014 approximately 23,500 litres of petrol escaped from a petrol filling tank at a petrol station in Haslingden operated by Tesco. Petrol entered the sewerage system with the odours affecting residents up to 1km away causing people to seek medical attention with headaches and sickness. The incident resulted from Tesco's failure to address a known issue with part of the fuel delivery system and an inadequate alarm system and was compounded by poor emergency procedures. Tesco were fined a total of £8m - £5m for the health and safety offence and £3m for the environmental offence.

**Stratford-on-Avon District Council** has successfully prosecuted R&S **Recycling Ltd for offences following** an incident that saw a 77-year-old lady struck by a recycling collection vehicle. Magistrates at Nuneaton fined the company £5,000 with payment costs in full of £6,637, plus a Victim Surcharge (£120) - totalling £11,757. The incident occurred as R&S Recycling Ltd's recycling collection vehicle was reversing into a public car park. Fortunately, the victim avoided the life-threatening or fatal injuries that would more commonly follow such an incident. When giving sentencing reasons the chairwoman referred to having considered the finances of the company, the lack of co-operation with the Council and a previous conviction following a fatality at the defendant's premises in 2011.

Natural Resources Wales (NRW) is asking farmers and land owners to be aware of requests to store baled waste on their land. It follows recent incidents where farmers across Wales, and at an industrial unit near Wrexham, have accepted waste for temporary storage. This is a growing problem across Wales driven by criminal gangs. The bales typically contain mixed partially shredded wastes including plastics and biodegradable materials. Landowners should be aware that the storage of baled waste is tightly regulated, and they need an environmental permit to do so legally.