

BRENT E-NEWS

Brent Decommissioning Project

Welcome to the ninth in the series of regular communications from the Brent Decommissioning Project Team



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Execution Phase Well Under Way Following CoP

An update with Austin Hand, Project Director

Cessation of Production (CoP) on Brent Delta, on 31 December 2011, marked an important milestone for the Brent Decommissioning Project, moving us well and truly into the “Execution phase” of decommissioning the platform.



*... embracing
the exciting new
decommissioning
challenges ahead.*



consideration the processes involved around the public consultation phase. Following this will be the Government approval and the derogation process involving other OSPAR governments (Decision 98/3), concluding with signoff of the decommissioning plans by the Secretary of State.

As always, please contact us if you require any further information about any aspect of the project.

Austin Hand
BRENT DECOMMISSIONING PROJECT DIRECTOR

It also signified the start of a new phase for the Brent Field, with the first of the four platforms entering a post-production period that will eventually see its deconstruction and removal from the North Sea. Brent Alpha and Brent Bravo are currently planned to continue to produce at least into next year and Brent Charlie for some time after that. So the Brent field will continue to make a contribution to North Sea production for some few years yet.

Brent has been an extremely successful field, its 37 year history underwritten by its remarkable people and their pioneering achievements. This next stage of the journey involves a large number of people – many of whom have worked in the field for much of their careers – carrying out a massive programme of engineering and support work offshore, and for them the story is far from over. As two of my colleagues describe in this newsletter, the atmosphere on Brent Delta remains positive and energetic, as the restructured teams recognise and celebrate the past, while embracing the exciting new decommissioning challenges ahead.

As you can also read inside, we are working steadily towards making our final Decommissioning Programme recommendations to the regulator, DECC. There is still some progress to be made before submitting the Consultation Draft of the Decommissioning Program to DECC and our work is increasingly taking into

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For further information on the Project, please visit www.shell.co.uk/brentdecomm or, you can also get in touch with the team via the ‘**Contact Us**’ link on the website.

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A new era for all on board

What does CoP mean for Brent Delta?

**Decommissioning Project Manager
Derek Allan talks about the platform's
new post-production regime.**



Firstly, by definition, Cessation of Production (CoP) means that the platform is no longer a producing asset. Production on Brent Delta was shut down on 31 December 2011, 34 years after it began. It was a momentous occasion for everyone concerned, particularly those who have worked there for some time. We worked out that one team member, with 31 years of service, had spent a full 10 years of his life on board Brent Delta, so you really

can't overestimate the significance of CoP for those people who have invested so much time and energy in the platform's success.

From an operational point of view, CoP also meant that responsibility for the day-to-day running of the platform was handed from the Asset team to the separate Decommissioning Project team. That was also a significant change. We have created a whole new organisation both offshore and onshore to support decommissioning activities, as opposed to continued production operations. The changes included our Integrated Services Contractor (ISC) team becoming our Decommissioning Services Contractor (DSC) team, Wood Group PSN, and our previously separate Operations and Maintenance teams being integrated into a single unit. As part of the restructuring activities, some people left the platform and were transferred to other Shell UK offshore platforms; whilst others remained on board as part of the new organisation, and new people have joined us too.



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We have nearly **160** people working offshore at the moment on Brent Delta.



Why build a new organisation? Well, we wanted the place to feel different and to make a step change in the way we approached our new work programme offshore. We needed to get people focused on the next chapter and the different safety hazards associated with decommissioning, as opposed to those associated with production operations. We spent over a year in preparation, designing the new organisation and engaging with people. We held away-day sessions with the offshore teams to talk about what the new organisation would look like, what is different about decommissioning and how we would work together to create a strong and sustainable safety culture under the new regime.

So now, instead of focusing on production operations, the teams are well placed within a technical and cultural decommissioning environment to support the engineering down and heavy deconstruction activities that lie ahead.

Engineering down involves bringing the platform to a state that is as near a construction site as we can make it. This means completely removing the remaining hydrocarbons from the platform, isolating the production systems and cleaning these systems out. It's a whole-team effort,

involving Wood Group PSN and their sub contractors, the offshore Shell Project team, the Ops and Maintenance team, and all the platform support staff. We have nearly 160 people working offshore at the moment on Brent Delta.

At the same time as we perform the engineering down and prepare the platform for the major deconstruction campaign of 2013/14 – which in turn will pave the way for the removal programme of 2015 – we still have well plugging and abandonment activities ongoing. This is a major three-and-a-half-year programme to decommission the platform's 40 wells, which will conclude early next year.

Brent Delta Offshore Installation Manager (OIM) George Stewart describes life on board the platform following CoP.



I've spent the better part of 12 years of my 28-year career with Shell working on Brent Delta, and I would describe the platform as a 'steady-state' asset and a great place to work. Everybody gets on well and the resulting good cooperation has always helped us to complete our various

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departmental and platform tasks. Some of the crew have been on board for decades and this has helped us to establish an enduring culture of goodwill and cooperation, which is still with us now that we're into the decommissioning phase.

On the day production stopped, Paul Morgan, the OIM on duty at the time, gathered all the crew together and said a few words about Brent Delta's history and achievements. Something we are very proud of is that in 2008 we were awarded the British Safety Council Sword of Honour, which still has pride of place on our platform. We have many happy memories, but there have been sad times also: we can never forget those of our Brent Delta colleagues who were lost in the Chinook helicopter crash of 1986.

CoP was an emotional experience for some and I think a number of people anticipated a big change in their lives. In reality, that change hasn't brought any real upheaval. It felt quite natural moving into decommissioning because we had spent the last 18 months or so preparing for CoP and so, when we actually reached it, we knew exactly what we had to do and the transition was almost seamless.

In the producing days, our number one focus was always the safety of our people on board and the integrity of the installation. That hasn't changed. When we get further down the road into the engineering down scope, the workplace will change continuously. Walls may disappear, walkways may be re-routed and there will be all sorts of changes that we have to make sure we manage properly, so that people are aware of them and can continually adapt to the changing geography of the platform.

What has changed in the meantime is the work we're doing. So far, although in "engineering down phase", somewhat surprisingly we've actually been carrying out an initial engineering up programme that means adding new equipment to the platform to allow us to carry out the decommissioning project safely. For example, we've installed additional diesel storage, because we're now producing the electricity we need on the platform from diesel instead of using the natural gas we used to produce. And although engineering activity is no stranger to us, since modifications have been ongoing throughout the life of the platform, for the

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first time it has become a key focus, after safety and integrity.

The Drill Crews are very well established on the platform as they have been throughout the life of the platform, drilling and maintaining the production wells.

Nowadays they are removing the steel tubulars and setting cement plugs to safely abandon the wells.

Some people have moved on and new people have moved in. That's been working well.

I'm still here because having seen Brent Delta as a production asset and worked in operations and as OIM, I find the decommissioning phase really interesting and challenging and it helps all of us to develop new skills. During the next four to five years our crew will change and evolve as the project continues, but I expect that a core group of people are likely to be here until the day we finally leave the platform.



I've heard it said that the way we look at decommissioning is that Brent Delta has done its job – now we're cleaning up the worksite. It's a whole new adventure for everyone on board.



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No 'rights and wrongs' in reaching conclusions

Project Director Austin Hand discusses key conclusions likely to inform the Brent Decommissioning Programme



The final stage of preparing the Brent Decommissioning Programme has become more of a process of drawing conclusions, than categorical decision-making. Our studies, consultations and evaluation over time have helped us to realise both the benefits – or otherwise – of certain solutions and the fact that there are no rights and wrongs in what we conclude, but rather that after the studies and research we have undertaken, some options appear more favourable than others, driven by what is safe, technically achievable, environmentally sound, and financially responsible.

There are many different views and opinions about how we should move forward and they can all be genuinely valid. This makes the Decommissioning Programme process very challenging, because whatever we choose to recommend, as we go through the process of involving other parties we could be met with legitimate challenge or even disagreement. The bottom line is that I think we have to do what we think is right and propose what, after much consideration, we believe is the optimal solution.

Conclusions

As there are no realistic opportunities for putting the platforms into alternative use, we will **bring the topsides to shore**. There may be some partial reuse of certain equipment and the rest will be recycled in steel mills. Our recycling target is over 95%.

The topsides can be removed in a series of reverse installation module lifts within the capacity of existing Heavy Lift Vessels. Brent platform modules are an average of 1,000 tonnes each and module support frames each weigh around 8,000 tonnes.

Alternatively it may be possible to remove the entire topsides in a single lift (exceeding 20,000 tonnes) utilising a new Single Lift Vessel that is currently under construction. If topsides are removed by Single Lift this would likely set a marine crane lifting weight record and be a world first for removal of a large integrated platform.

The final selection of lifting method will result from evaluation of both technical and economic considerations and may involve a combination of both removal methods.

Derogation for leaving the gravity base structures in place will be sought. We were

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Interested to learn recently that following a study, the Norwegian Petroleum Safety Authority and Climate Pollution Agency reached a similar conclusion to our GBS refloat studies, that refloat and other forms of removal are not risk free, and recognised that the key risk areas are similar to those identified by our own studies and that leaving the structures in place could have fewer consequences for health, safety and the environment than removing them.

If the installation is left with the **legs left up**, lights and/or other navigation aids will be installed. "Legs-up" is likely to be our initial proposal at this time but it is something that could be revisited over time.

We will also propose that the **footings of the Brent Alpha steel jacket will remain on the seabed** due to the increased safety risk and large amounts of time and energy that would be expended on removing them.

Once we have removed the attic oil and oily water from the cells, we must determine the best option in relation to the remaining cell contents. The possibilities include either attempting to remove the cell content followed by some form of treatment, or leaving the oily sediment in the cells. The latter remains an option we are studying given the considerable challenges associated with sediment removal. All options carry potential environmental risks. For possible sediment in situ options, we are studying possible exposure scenarios and we recognise that we need to establish that there will be no demonstrable or appreciable impact on the environment over an extended period of time if we are to propose this option for regulatory approval.

