

VATIS Ltd
18 Crofton Way
Swanmore
Hampshire

[REDACTED]

[REDACTED]

Mary McAllan
Director of Economic Development
Scottish Government
5 Atlantic Quay
150 Broomielaw
Glasgow G2 8LG

4 Oct 18

PROJECT POSEIDON: QUARTERLY REVIEW

Reference: Project Poseidon VATIS

Background

The Scottish Government has provided a commercial loan facility to Ferguson Marine Engineering Limited (FMEL) – the Project Poseidon Commercial Loan – and has identified the need for independent operational expert advice relating to the Loan. This is to monitor FMEL’s performance against its vessel delivery programme and resourcing plan and provide assurance that Loan conditions and expectations are being met.

The Loan Agreement states that FMEL will provide the following information for review:

“a build update report on the build out of vessels 801 and 802 plus cost overruns and other issues, details of cost estimations in connection therewith and any such other information as relevant to the delivery of the vessels and to the running of the business”

and will allow:

“an independent operational expert nominated by the Scottish Ministers to meet with the Chief Executive Officer of the Group (whether by telephone conference or otherwise) and provide such independent expert with information as may be reasonably requested by him, provided that (i) such meeting/call or information is in connection with the vessel build progress for the vessels known as 801 and 802, and (ii) such meeting/call is for no longer than one working day in duration.”

Luke van Beek CBE is employed as an independent expert who has the remit to review the information provided by FMEL and prepare:

- i. A brief assurance report relating to the condition precedent for each subsequent drawdown notice prepared by FMEL (last completed on 11 Sep 18) ;

- ii. A quarterly review to monitor build progress against the declared plan;
- iii. Assistance as required to the Scottish Government to support and improve the future commercial strategy of the FMEL shipyard.

Quarterly review

The report below is an independent review of the build progress against the plan declared by FMEL. The review was undertaken on 25 & 26 September on site.

QUARTERLY REVIEW REPORT

Summary:

My last visit was in August to produce a drawdown report. A second drawdown report was produced mid September (without a visit) and this Quarterly report is based on a visit spanning 3 days 24-26 September. A review of the programme for 801 and 802 revealed minor delays with some milestone slippage, primarily associated with the re-engagement of [REDACTED]. I observed the move of the latest Block of 802 into position on the slipway, ready to be connected with the remainder of the ship. This went smoothly and has done much for improving the feeling of progress I witnessed. Despite the minor slippage my overall impression is of a well-motivated workforce with recruiting going well. There are 2 key ship manager posts due to be filled at the end of October and this should further improve overall project management and supervision.

I have no significant concerns on progress on ferries 801 and 802. As far as sustainability of FMEL is concerned the adverse publicity has the potential to severely affect their ability to win future work and the poor relationship with CMAL (it is difficult not to make a link between these concerns) is unhelpful.

I remain confident that an operational date of July 2019 can be achieved for 801 and that 802 will be launched around the same time.

Delivery of 801 and 802 to Plan

Key Milestone Dates:

<u>Milestone Description</u>	<u>Original Review</u>	<u>Last Review</u>	<u>This Review</u>
<u>Date:</u>	<u>May 2018</u>	<u>July 2018</u>	<u>September 2018</u>
Ship 801			
Shore Supply	3 Sep 18	3 Sep 18	5 Nov 18
Harbour/Emergency Gen	29 Oct 18	29 Oct 18	21 Nov 18
Aux Gen	5 Nov 18	5 Nov 18	21 Nov 18
Main Engines	12 Nov 18	12 Nov 18	5 Dec 18
Controllable pitch props	26 Nov 18	26 Nov 18	12 Dec 18

Load test/power management	3 Dec 18	3 Dec 18	7 Jan 19
Bow/stern thrusters	21 Jan 19	21 Jan 19	21 Jan 19
Dock Trial	11 Feb 19	11 Feb 19	11 Feb 19
Dry dock	18 Feb 19	18 Feb 19	18 Feb 19
Builder's Trial	29 Apr 19	29 Apr 19	29 Apr 19
Owner's Trial	6 May 19	6 May 19	6 May 19
LNG Commission	13 May 19	13 May 19	13 May 19 (1)
LNG Dock Trial	3 Jun 19	3 Jun 19	3 Jun 19 (1)
LNG Sea Trial	10 Jun 19	10 Jun 19	10 Jun 19 (1)
<u>Ship 802</u>			
LNG Tank Installation	13 Aug 18	Under discussion	12 Nov 18 (2)
Tail shaft install	26 Nov 18	26 Nov 18	18 Feb 19 (4)
Launch	5 Jul 19	5 Jul 19	5 Jul 19
Mezz Deck Install	5 Jul 19	5 Jul 19	12 Jul 19 (3)

Notes

1. LNG commissioning and subsequent trial s are dependent on availability of bunkering facilities. Whilst this could be by road tanker there remain concerns about the availability of trained personnel.
2. The LNG tank is due to arrive in early November. Given the difficulty experienced fitting in 801 the yard is considering a different approach in 802 which, in overall programme terms would save time but may delay this specific milestone.
3. An option is being examined to install the Mezzanine decks in 802 pre-launch. This will not delay the launch date but again solves a problem experienced in 801.
4. Revised to reflect new LNG tank date. No effect on launch

Factors (outside FMEL control) which have affected programme plan:

1. Late agreement to the loan facility (delay about 4 weeks)

Factors (within FMEL Control) which have affected programme plan

1. Design maturity
2. Date ██████████ re-utilised

Schedule Comments

There has been some minor slippage in milestones associated with electrical work. This has resulted from the late deployment of ██████████ associated both with the delay in making the loan available and some design maturity issues. I believe these milestones do not sit on the critical path to Sea Trials and the time lost can be recovered. Inevitably when considering a high level programme with the focus on milestones there must be concern that lower level programme slippage

remains undetected. To avoid this I discussed with both the planner and the Ops Director (who is acting as Ship Manager) their observations. There has been some delay in fabrication and outfitting is 2/3 weeks behind. This slippage appears recoverable.

Design Maturity

There have been too many incidences of rework which have resulted from a lack of design maturity. This appears to be improving but it has impacted the schedule.

Change Management

For the first time I had an in depth look at the Change Management process (Variation To Contract (VTC)). This lacked robustness during the early days of the contract and it was not until the beginning of 2018 that all change (particularly those that impact time or cost) has been properly captured by VTC. It appears to be this single issue, above all others, that led to the need to re-baseline the programme and forms the basis of the dispute with CMAL.

Risk Register

Following my previous advice the Risk Register has become a living document and whilst it remains "work in progress" it is emerging as a key management and planning tool. I look forward to having a further in depth look at the associated processes at the next Quarterly Review.

Resourcing

I discussed the current level of resourcing with the HR Manager. The initial target of 100 new hires by the end of September has been achieved. Key gaps remain with 2 ship managers joining at the end of October/early November. More supervisors are also required but this appears to be in hand. Thus resourcing levels remain below the programme plan with the expectation that this will be recovered by early November.

Sub-Contracting

████████████████████████████████████████████████████████████████████████████████ In both cases there has been a delay in getting both sub-contractors back on site. This has in part been due to cash flow (associated with the loan), in part because of design maturity issues. Both sub-contractors have now re-engaged and I saw good evidence of progress. At present completion of these contacts does not appear to effect critical path to sea trials and provided this work now proceeds to plan any delay is containable.

LNG Commissioning

I have previously expressed concern about the provision of the infrastructure and training associated with the use of LNG as a fuel. This issue is becoming urgent as the commissioning of LNG in 801 approaches. I intend to examine this further at my next Quarterly.

Sustainability of FMEL

The new and significant emerging concern is the sustainability of FMEL. If they are to continue as a viable business post the delivery of 802 they must win future work. I was shown an impressive list of opportunities in the fishing Fleet and Defence work. The ability to win this work appears to be adversely affected by the reputational issues associated with media comments and adverse publicity. The ongoing contractual dispute with CMAL remains another concern. It is my observation that there appear to be different objectives being pursued by some of the stakeholders. A vital element of the way forward must be to align all stakeholders behind a common set of agreed objectives.

Strategic Advice to FMEL (particularly wrt Defence opportunities)

There was little opportunity during this visit to discuss strategy because of overriding concerns (explained above) about winning future work.

Next Visit

In the absence of other demands (e.g. further loan drawdown) it is recommended that the next Quarterly Review should be planned for early January 2019. This review will particularly examine:

- Recovery of the build to programme
- Maturity of the risk register
- LNG concerns around availability and training
- Design maturity concerns

Luke van Beek CBE
VATIS Ltd
Independent Expert