

Programme: 100m LNG Dual-fueled Ro-Ro Passenger Ferry

Programme Director: [redacted]

Review Period: January 2020

<u>Name</u>	<u>Job Title</u>	<u>Signature</u>
[redacted]	Programme Director	
[redacted]	Project Accountant	
[redacted]	Planning and Controls Manager	



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1a. SHE

Report Number: 012	Date: 01.01.21
Month: Dec 12	

1. Monthly Cumulative Safety Statistics

S/#	Title	This Month Figures		Cumulative
01	Total Man Hours <small>(provided by Planning Department)</small>	51829		301803
02	Man Power <small>(provided by HR)</small>	Direct	254	
		In-Direct	92	
		Total	346	
03	RIDDORS	1		3
04	Fatality Case (Fatal)	0		0
05	Lost Working day Case (LWC)	0		3
06	Medical Treatment Case (MTC)	1		11
07	First Aid Case (FAC)	3		56
08	Property Damage (PD)	0		0
09	Near Miss (NM)	0		6
10	Fire Incident (FI)	0		2
11	Environmental Incident	0		1
12	Total Number of Recordable Injuries	0		20
13	Total Number of Days Lost			16

2. Description of Incident/Accident and Near Miss Reported This Month

Events (NM/MT/FA/PD ETC....)
<ol style="list-style-type: none"> RIDDOR. 1 incident. Back injury while cleaning of blasting area on 802 Medical treatments – 1 – medical treatment resulting in above RIDDOR. First Aid – 3 incidents - 1 foreign objects in eye, 2 cut fingers. Fire incident – Nothing reported. 27/7 fire watch patrols being maintained. Environmental incident – no environmental incidents occurred in month of December. Near Miss – None reported

3. Other SHEQ Activities

Description	This Month	
Site Safety Inspection	2	802 & 805 Walks include SMT member and Union Representative. Continue to review the current site COVID-19 controls.
Policy/Paperwork Reviews	1	Current reviews ongoing include Permit to Work audit & involvement into Integrated Safe System of Work (ISSOW). New Site Lifting Rules / Process to be implemented & rolled out. Take 5 implementation. Induction Process to be updated. 5s implementation. Continued review of COVID-19 control measures.

4. SHEQ Initiatives

Description
New Interim Health & Safety Director [redacted] started 7 th December with a view to help identify, change & improve current processes, procedures & safety culture throughout.
Monthly Safety Committee meetings to be started again early Q1 2021. Initial discussions have taken place to discuss best format for future meetings.
Full PTW audit completed for first 2 weeks of December which identified major consistent failings.
As part of the Permit to Work review, WORKSAFE Integrated Safe System of Work (ISSOW) is being looked at with a view to evolve the current PTW system & integrate into the WORKSAFE system. Face to face meeting is being arranged with potential supplier.
Currently looking to re-introduce / rollout the Take 5 process, this quick dynamic risk assessment is efficient and effective at the actual location where the work in question is to be completed.
Onsite Health & Safety Training facilities covering many various HSE disciplines.

[redacted]

2. Contract Summary

Customer	CMAL	Contract Start	Restart – 2 nd December 2019
Agreed Contract value	Budget to completion - £110m	Contract Finish	801 April 2022 – 802 Dec 2022
Project Type	Design and Build	Forecast Finish	801 April 2022 – 802 Dec 2022
Project Director	[redacted]	Contract Type	SG funded

Project Scope	Design, build and commission 2 off LNG dual fuel ferries, including training and provision of spares and handbooks. The scope of this project is to complete the design and build etc. following the Receivership of 16 th August 2019.
Significant Project Changes	None (in this phase).
Acceptance Criteria	As per the specification.
Payment Terms	Currently – funding provided by the Scottish Government based upon FM(PG) cash flow forecast.
Warranty	The warranty for both vessels is 12 months from delivery. No allowance has been made financially for either shipyard support or suppliers warranties that have lapsed during this period.
Liquidated Damages	No allowance has been made for late delivery. Performance penalty for weight – the maximum allowance of £250k per vessel has been included, if the allowance is exceeded the buyer has a contractual right to terminate. Performance penalty for speed - the maximum allowance of £150k per vessel has been included, if the allowance is exceeded the buyer has a contractual right to terminate. Performance penalty for fuel consumption – no allowance has been made.
Special Conditions	

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3. Business Success Criteria

Success Criteria	Due	Owner	Enabler	Status	TL	Fut Tr
All work undertaken at ship is by work package and identified in the programme	June 20	[redacted]	<ul style="list-style-type: none"> Development of the programme down to a work package level. Time recording aligned to allow roll up. Time recording process effective. 	<ul style="list-style-type: none"> 801/802 project programmes are now at Lv14 detail. Manhours, zones, sub-zones and CAM's are coded within P6 for monitoring and reporting purposes. 	G	↔
Work packages are issued with associated information and materials	June 20	[redacted]	<ul style="list-style-type: none"> Inventory is loaded into the stores management module on [redacted] Inventory can be coded to align with P6 plan 	<ul style="list-style-type: none"> Work packages for fabrication, hotwork and pipe manufacture are now being issued with material identified. 	A	↑
Inventory is properly identified in Factory Master to the appropriate level	May 20	[redacted]	<ul style="list-style-type: none"> Movement of equipment from [redacted] to new facility and entered onto [redacted] with appropriate part numbering 	<ul style="list-style-type: none"> Inventory has now been QC checked [redacted] material checking is now underway and comms cabinets have been completed), loading into Factory Master is now well underway with approx. 9500 items loaded. 	G	↔
Technical information is produced on time and change is minimised	Sept 20	[redacted]	<ul style="list-style-type: none"> [redacted] are contracted to complete the design. Design review process allows proper review of the design before issue 	<ul style="list-style-type: none"> The [redacted] programme to delivery AFC drawings will complete at the end of January. The Field Engineering Team are clearing holds by zone 	G	↔
Technical information is produced on time and change is minimised	Sept 20	[redacted]	<ul style="list-style-type: none"> Produce and maintain an accurate MDR, identify which existing drawings are required to be updated, identify which drawings are required for planned work packages. Minimise change by confirming design is compliant to requirements and complete 	<ul style="list-style-type: none"> Legacy drawings being checked for validity. Basic design not completely approved so there is a risk of change. Ship requires survey to scope structural changes – survey of car deck has been completed and identified 1 major issue (breast plate to install), 190 actions are detailed and being progressed by Eng / Ops teams 	A	↔
Control of change is a properly managed process	March 20	[redacted]	<ul style="list-style-type: none"> Creation of a new process, implementation and adherence 	<ul style="list-style-type: none"> The process is fully operational. Drawing revisions are now being received and this will need managing as part of the overall change process. 	G	↔
Customer relationship is positively maintained throughout the project	Through the project	[redacted]	<ul style="list-style-type: none"> Regular dialogue at all levels, monthly reviews, ad hoc meetings 	<ul style="list-style-type: none"> CMAL are fully engaged with the model review. Programme and long-standing issues are being resolved. Monthly progress meetings are working well. 	G	↔
Identify and manage risks and opportunities	Through the project	[redacted]	<ul style="list-style-type: none"> A risk review process is in place and is being proactively managed 	<ul style="list-style-type: none"> Risk review are being undertaken monthly. Key risks are being actioned 	G	↔
The project is properly resourced with suitably qualified and experienced people	April 20	[redacted]	<ul style="list-style-type: none"> Accurate resource forecasting from the schedule and a resource strategy in place 	<ul style="list-style-type: none"> The lack of subcontract production labour is now impacting the programme. This is being reviewed weekly to determine how this can be improved and recovered. Engineering has key resource requirements to reduce the reliance on contractors. [redacted] are now on contract to provide additional pipefitting resource. 	R	↔

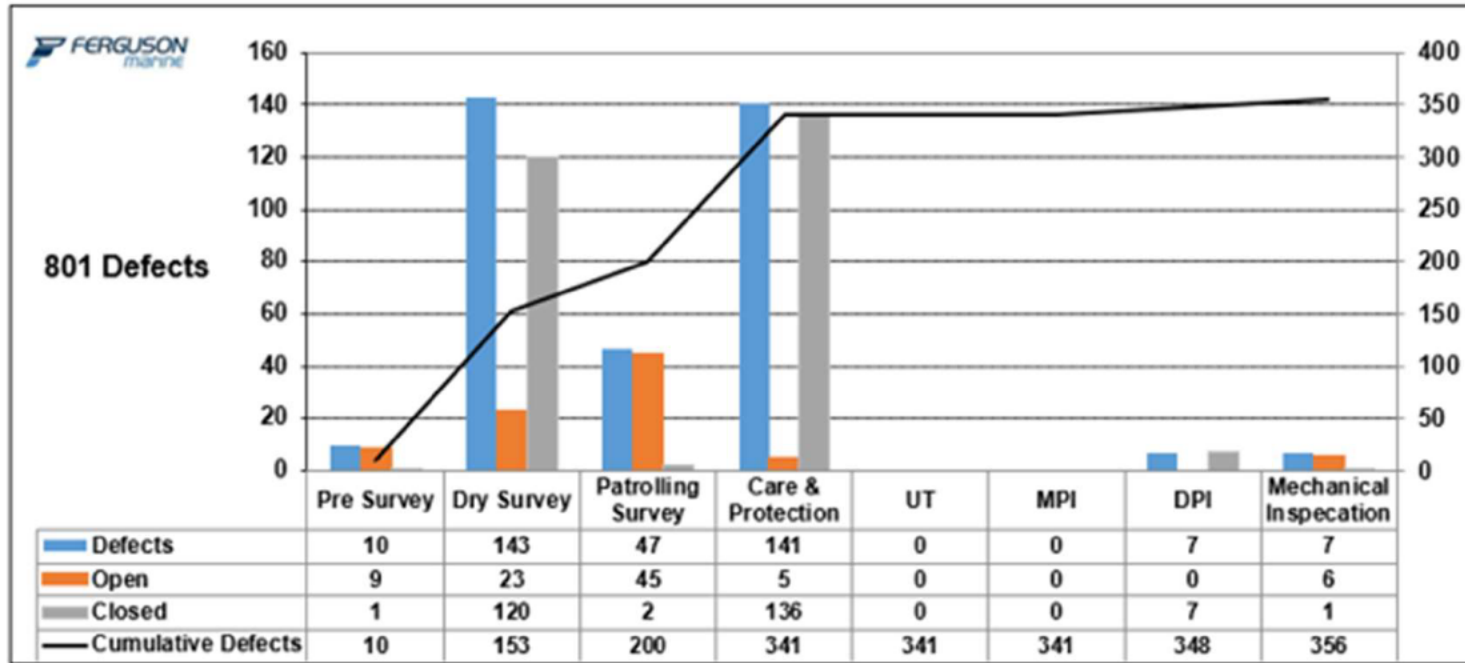
[redacted]

4. SOFT Report

Successes	Opportunities
<ul style="list-style-type: none">• In accordance with the new home working requirements, most office based staff are now working from home.• External piping manufacture for zone 2 is now complete and zone 3 is on order with deliver forecast mid to end February.• Electrical installation - [redacted] are currently finalising the 801 survey and mobilisation has commenced.• Zone 0202 – a pipe painting facility has been set up in Greenock to complete painting of bought in pipes.• [redacted] completion of all zones at AFC is forecast for mid February	<ul style="list-style-type: none">• Improved dimensional control using 3D technology. To be initially implemented on 802 units 82/83/84 and then future units/structure.• Build strategy review for 802 to build as blocks for wheelhouse and bow units prior to erection at ship• Double curvature plate has been identified as a problem area and an order is being placed with [redacted] to produce these plates. This affects the 802 ducktail and bow units.• [redacted] is now on order ready to commence studding 801 areas 5dk and above.
Failures	Threats
<ul style="list-style-type: none">• As a result of the new Scottish Government requirements for social distancing measures, particularly in the increase in canteens/amenities from 1m to 2m. This has caused the yard to suspend production on 10th January to allow the amenities to be reconfigured and all COVID precautions to be reviewed. Work on 801 will have a limited start w/c 25th Jan and it is expected that full production will resume on 1st February.• Subcontract labour has failed to meet the programme demand, since the 19th October, the demand for approx. 80 production staff has only just reached less than 50%. The forecast supply does not yet satisfy the Q1 demand and a decision has been made to allocate available labour to 801. This will impact the 802 programme. Alternative sources of labour from [redacted] have not materialised. Subcontracting packages of work has been implemented for pipe installation.• The impact of the suspension of production work, labour shortfall and the extension to the 801 drydock will require a review of the 801/802 programmes.• The technical proposal for 801 hull paint repair has not been agreed with CMAL. CMAL consider that a full blast back will be required to meet the specification. This is being reviewed.• Both 801 & 802 main transformers have been inspected and have degraded. A decision has been made to replace the units at a cost circa £130k.	<ul style="list-style-type: none">• COVID 19 impact to programme– Further issues/restrictions remain a threat to the programme. As a result of an FMPG employee contracting COVID from an outside source, 9 production managers who were in contact are isolating for 10 days. The impact of COVID is now being seen in the supply chain. LNG bunkering line penetrations have been delayed from November to a forecast of end January.• Volume outfitting is now commencing, the production organisation to manage this volume is currently not in place. Additional management and supervision has been identified and recruitment, either permanent or temporary, is in hand.• Working practice changes proposed through production wage negotiations may take longer than expected. The ballot was rejected in November. Full time union officials have been involved and a further ballot is expected early Feb.• The manufacturing shop loading, and resource, to deliver 801/802/805 work is a concern. Walkways and stairs will be subcontracted. Also the aft mast is being considered. Quotations for these packages has been received and is now being evaluated to allow POs to be placed.• Weight report – full review of the report is currently underway using [redacted] generated data and validating [redacted] data where possible. This may have a weight growth risk
Impact Statement / Help Needed	

[redacted]

5. Quality 801



Open Defects 801			
	Current	Previous	Prior
Critical	28	28	x
Major	29	29	x
Moderate	25	22	x
Low	6	6	x
Total	> 60	20 - 60	< 20

Critical

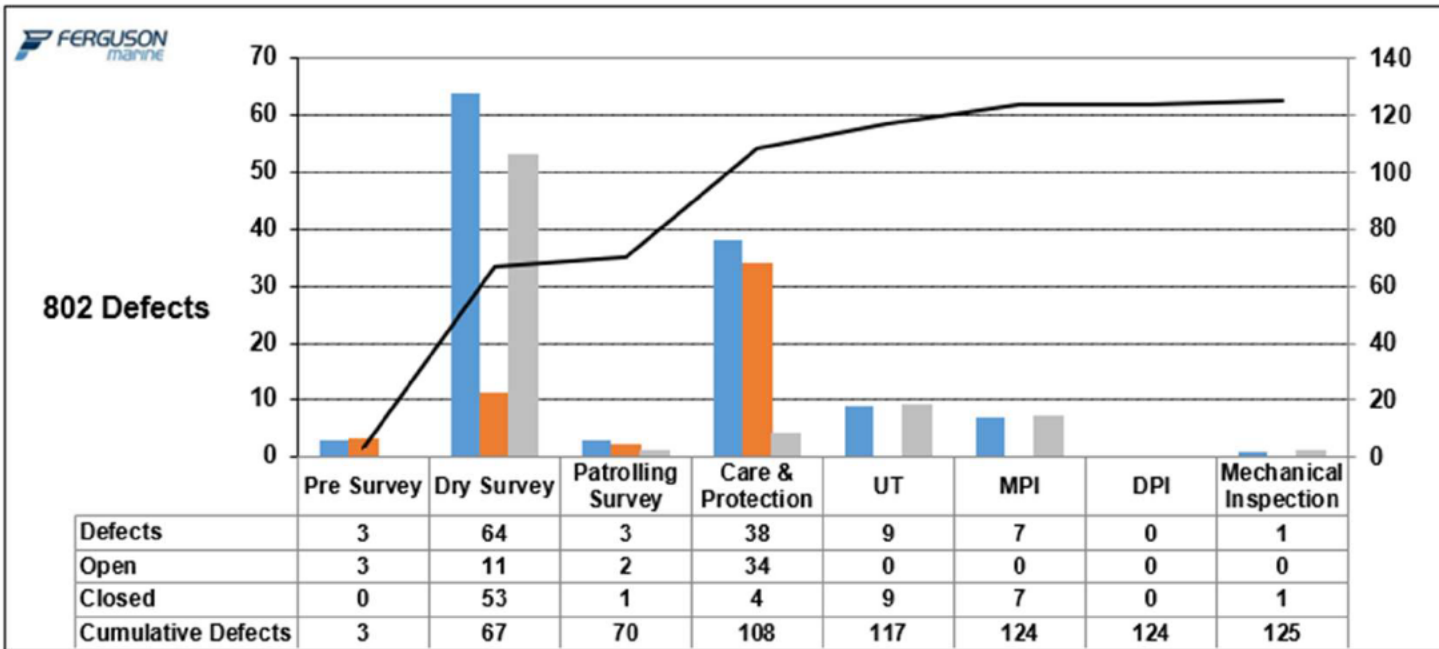
- Relate to Legacy issues:
 - Panama Eyes (25 of the open 28)
 - Bow Thruster space Web thickness,
 - Aft mooring Dk local pitting
 - Internal transformer coil corrosion

• **Major:** - ER pipes not welded, isolated equipment damage, structural elements to complete

• **Moderate:** - fairing, lugs, brackets

[redacted]

5. Quality 802



Open Defects 802			
	Current	Previous	Prior
Critical	2	0	x
Major	3	5	x
Moderate	5	5	x
Low	41	41	x
Total	> 60	20 - 60	< 20

Critical

- Relate to Legacy issues:
 - External shell alignment block 9/10
 - Internal transformer coil corrosion
- Major: Structural deflections
- Moderate: C&P & Dry survey defects

[redacted]

5. Quality

Dim control strategy Unit 82 – preparation started with Datum line off and 'green' material mark off – Vessel will be matched to as built and design requirements and erected as First time Fit

[redacted] joined the Quality department as Process Control and Compliance manager. Key first activities has been the roll out of welding standard and pre fit weld up surveys.

ISO 900: 2015 certificate Renewal audit completed with successful results. A significant achievement in the development of the newly formed FM(PG) entity as we have moved to new approach of on system definition of our business processes and business management system.

Phase II process mapping definition commencing this month with strategic focus on operational teams and defining the inter departmental handshakes

Localised plate pitting has been found IWO STBD aft mooring deck and remedial plans and repairs have been agreed with Class

QC mechanical department are working closely with client and operations of the legacy ER issues, OORs and pipe installation checks this will progress in this quarter with progressive acceptance as we start to ramp up activity in Zone 2

[redacted]

[redacted]

6. Traffic Light Report

Criteria	Overall Status				Future Trend	Return to Green		Comments
	Sep 20	Oct 20	Nov 20	Dec 20		Date	Status	
Overall Status	A	R	R	R	↔	TBA	R	<ul style="list-style-type: none"> The revised Quarterly Look Ahead, QLA, for Q1 was agreed in December. This has been impacted by the COVID suspension of work and a continuing shortfall in subcontract labour. Available labour is being focused onto 801. When normal work is resumed an impact assessment will be made on the programme
Safety	A	A	A	A	↑	TBA	G	<ul style="list-style-type: none"> An interim senior safety director has now been appointed and has undertaken a gap analysis. This shows a score of 23%. Priority H&S actions are being identified however COVID precautions have taken precedence through January
Quality	R	R	R	A	↑	Mar	G	<ul style="list-style-type: none"> Quality moves to Amber and follows the natural progression of understanding the quality issues and route to closure. CO-AT on contract and equipment checks part of scope. The survey and servicing of the main engines has commenced however the engineer is required to return to site to complete the survey initial feedback nothing of major concern. The underwater paint system proposal has been returned by CMAL with reservations on repair however more detailed discussion required to fully understand and close out. Transformer survey complete and repair by replacement has been agreed. Dimensional control surveys with Specialist contractor underway. Double curvature planning now outsourced.
Customer Satisfaction	G	G	G	G	↔			
Schedule	A	R	R	R	↔	TBA	R	<ul style="list-style-type: none"> The revised Quarterly Look Ahead, QLA, for Q1 was agreed in December. This has been impacted by the COVID suspension of work and a continuing shortfall in subcontract labour. Available labour is being focused onto 801. When normal work is resumed an impact assessment will be made on the programme
Finance	G	G	G	G	↔			<ul style="list-style-type: none"> The re-baseline has maintained the previous forecast at completion. There is an increasing amount of hours unspent which reflects the lack of labour
Technical	A	A	A	A	↑	Mar	A	<ul style="list-style-type: none"> Lloyds and MCA approval remains outstanding (typically NA outputs). Design verification completed; many issues found, typically poor documentation. Weight and stability calculations have been reviewed and there are a high number of issues to resolve. Weight report will be redone using supporting information from [redacted] and validating VN outputs.
Suppliers	A	G	G	G	↔			<ul style="list-style-type: none"> Tender exercise on 801/802 Electrical Cable Supply and Installation now concluded. Phase 1 of the 801/802 Hydraulics tender now concluded with Phase 2 in process. Tender exercise on Pipe Fitting framework in process. FMEL sub-contract agreements with both [redacted]
Resources	A	R	R	R	↔	TBA	R	<ul style="list-style-type: none"> Subcontract production labour is building up more slowly than planned. The lack of labour is now impacting the programme. This is currently being reviewed to determine how this can be improved and recovered Engineering has key resource requirements to reduce the reliance on contractors.
Risk	A	R	R	R	↔	TBA	G	<ul style="list-style-type: none"> The status remains red as the labour risk is impacting the programme. The COVID risk has also impacted with the suspension of production occurring in January.

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7. KPIs / Balanced Scorecard

Planning

Schedule Performance Index			
	Current	Previous	Prior
801	0.56	0.57	0.60
802	0.50	0.55	0.57
RAG:	< 0.75	0.75 - 0.95	> 0.95

Cost Performance Index			
	Current	Previous	Prior
801	0.65	0.66	0.71
802	0.83	0.87	0.88
RAG:	< 0.75	0.75 - 0.95	> 0.95

Work Packs Opened			
	Planned	Actual	Adherence
Manufacturing	43	27	63%
Installation	5	15	300%
RAG:	< 80%	80 - 90%	> 90%

Work Packs Closed			
	Planned	Actual	Adherence
Manufacturing	24	24	100%
Installation	0	0	100%
RAG:	< 80%	80 - 90%	> 90%

Defects

Open Defects 801			
	Current	Previous	Prior
Critical	28	28	28
Major	29	29	29
Moderate	25	22	22
Minor	6	6	6
Total	88	85	85
RAG:	> 60	20 - 60	< 20

Open Defects 802			
	Current	Previous	Prior
Critical	2	0	0
Major	3	5	5
Moderate	7	5	5
Minor	41	41	41
Total	53	51	51
RAG:	> 60	20 - 60	< 20

SHE

Health and Safety			
	Current	Previous	Prior
Lost Working Days	0	0	0
RAG:	> 3	1 - 3	< 0

Budget

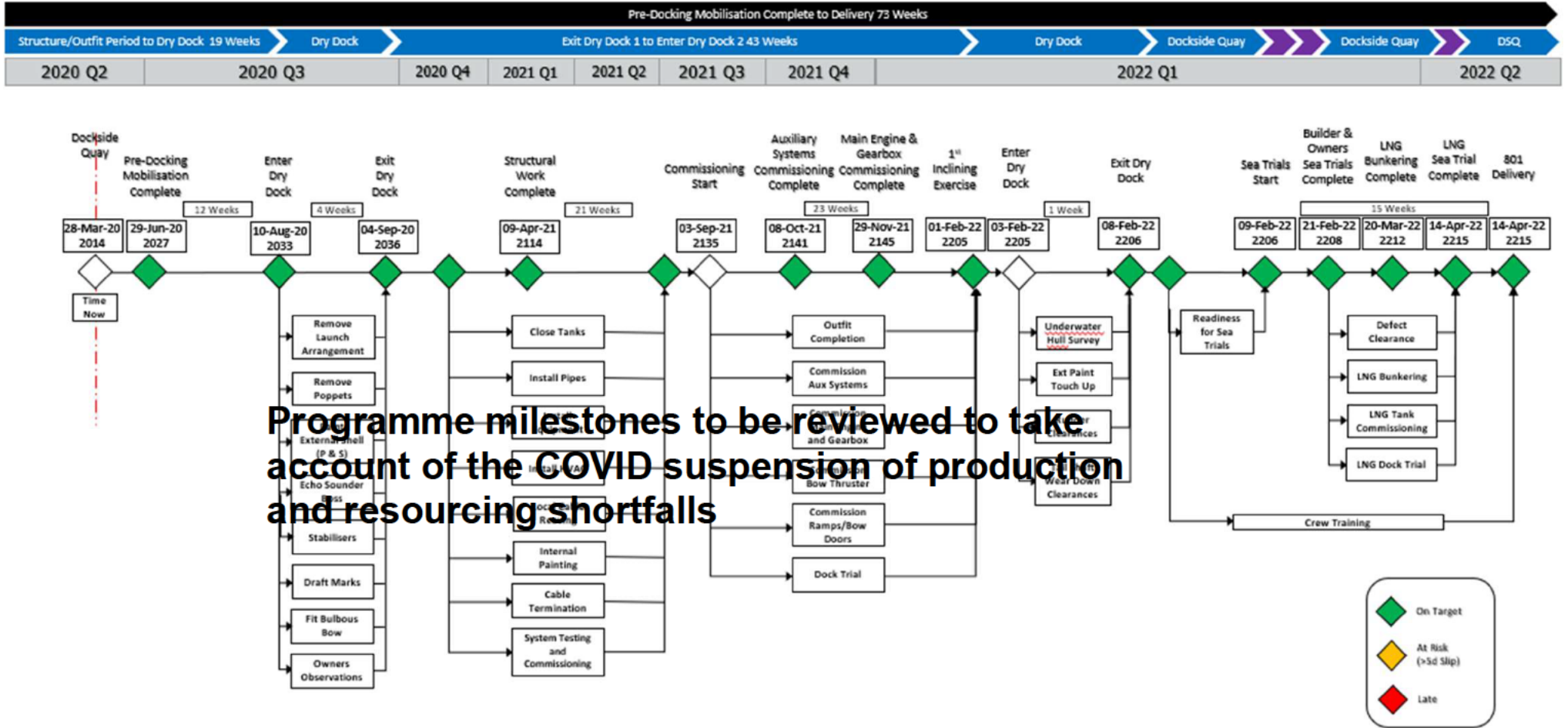
Budget £m			
	Original	Forecast	Adherence
801	£45.5	£46.2	102%
802	£63.2	£62.5	99%
Capex	£1.6	£1.6	100%
Total	£110.3	£110.3	100%
RAG:	< 95%	95 - 98%	> 98%

Manpower - FTE 30: 2101 - 2104			
	Planned	Actual	Adherence
Ancillary	36	7	19%
Caulker Burner	16	6	38%
Joiner	21	0	0%
Painter	11	11	100%
Pipefitter	42	11	26%
Plater	62	26	42%
Scaffolder	16	6	38%
Shipwright	8	2	25%
Welder	70	10	14%
Engineer	7	4	57%
801 Total	142	52	37%
802 Total	165	32	19%
Total	307	84	27%
RAG:	> 80%	80 - 90%	> 90%

[redacted]

8. 801 Schedule Overview as @ Baseline Position (Aug 2020)

801 Timeline to Delivery

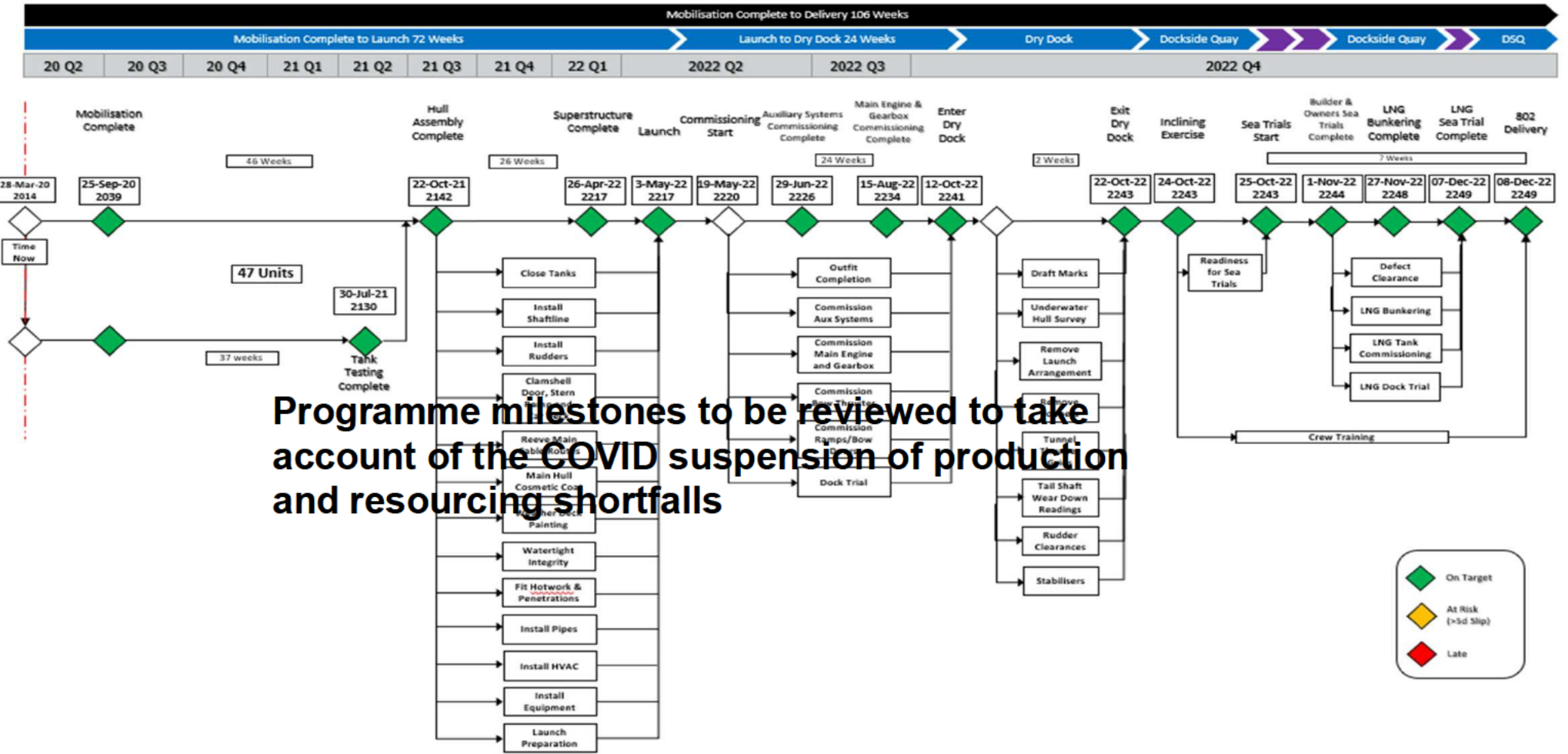


CDP has 3 weeks time contingency included compared to our Driving Project Plan

[redacted]

9. 802 Schedule Overview as @ Baseline Position (Aug 2020)

802 Timeline to Delivery



[redacted]

9. CMAL/Transport Scotland Milestones

801/802 Milestones

801				2020 Q4		2021 Q1			2021 Q2			2021 Q3			2021 Q4			2022 Q1			2022 Q2			2022 Q3			2022 Q4				
Description	Month	Year	Qtr	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Zone 02 AFC Drawing Issue Complete	October	2020	Q3		◆																										
Electrical Contract Awarded	November	2020	Q4			◆																									
Z11 Production Outputs Complete	December	2020	Q4				◆																								
Start Engine Room Hotwork	January	2021	Q1					◆																							
Completion of car deck recesses	February	2021	Q1						◆																						
complete install pipework in sub zone 0303	March	2021	Q1							◆																					
Structural Work Complete	April	2021	Q1								◆																				
commence installation in zone 9	May	2021	Q2									◆																			
Completion of Wheelhouse Windows	June	2021	Q2										◆																		
All Pipework installed (Z10)	July	2021	Q3											◆																	
Commission Auxiliary Systems Start	August	2021	Q3												◆																
Auxiliary Systems Commissioning Complete	October	2021	Q3													◆															
Z11 - Wheelhouse all electrical equipment installed	September	2021	Q3														◆														
Main Engine & Gearbox Commissioning Start	October	2021	Q4															◆													
Main Engine & Gearbox Commissioning Complete	November	2021	Q4																◆												
All Checkwire complete	December	2021	Q4																	◆											
Sea Trials Start	February	2022	Q1																		◆										
Builder & Owners Sea Trials Complete	February	2022	Q1																			◆									
LNG Bunkering Complete	March	2022	Q1																				◆								
LNG Sea Trial Complete	April	2022	Q1																					◆							
801 Delivery (contract milestone)	April	2022	Q1																						◆						

Programme milestones to be reviewed to take account of the COVID suspension of production and resourcing shortfalls

802				2020 Q4		2021 Q1			2021 Q2			2021 Q3			2021 Q4			2022 Q1			2022 Q2			2022 Q3			2022 Q4				
Description	Month	Year	Qtr	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Commence Preparation Unit 3/5	October	2020	Q3		◆																										
Complete preparation unit 3/5	November	2020	Q4			◆																									
Erect Unit 02 at Berth	November	2020	Q4			◆																									
Complete preparation for unit 4/9	December	2020	Q4				◆																								
Commence Tank Testing	January	2021	Q1					◆																							
Commence Zone 2 Pipework Manufacturing	February	2021	Q1						◆																						
Commence Zonal Hotwork Programme - Zone 2	March	2021	Q1							◆																					
Commence Zone 2 Pipework Installation	April	2021	Q2								◆																				
Complete Preparation of the Funnels	May	2021	Q2									◆																			
Completion of Cryogenic Pipework - Zone 2	June	2021	Q2										◆																		
Shutline - Final Line of Sight	July	2021	Q3											◆																	
Erect Fo'c'sle Block at Berth (U49/U50/U51)	August	2021	Q3												◆																
Complete Pre-Fitting Out (PFO) Zone 2	September	2021	Q3													◆															
Hull Assemble Complete (contract milestone - berth join up completed)	October	2021	Q4														◆														
	November	2021	Q4															◆													
	December	2021	Q4																◆												
Milestones for the period after October 21 will be agreed 3 months prior to the date. CDP milestones are included through to delivery	January	2022	Q1																	◆											
	February	2022	Q1																		◆										
	March	2022	Q1																			◆									
Superstructure Complete (contract milestone - 100% fabrication of hull and superstructure)	April	2022	Q2																				◆								
Launch (contract milestones - launch and hull inspection and acceptance prior to paint completion)	May	2022	Q2																					◆							
Commissioning Start	June	2022	Q2																						◆						
Commissioning of Auxiliary Systems Complete	June	2022	Q2																						◆						
	July	2022	Q2																							◆					
Main Engine and Gearbox Commissioning Complete	August	2022	Q3																								◆				
	September	2022	Q3																									◆			
Commence Sea Trials	October	2022	Q4																										◆		
Builder & Owners Sea Trials Complete	November	2022	Q4																											◆	
LNG Sea Trial Complete	December	2022	Q4																												◆
802 Delivery (contract milestone)	December	2022	Q4																												◆

[redacted]

9. CMAL/Transport Scotland Milestones – status to end 2020

801/802 Milestones - Q4 2020 and Q1 2021

801				2020 Q3	2020 Q4				2021 Q1			Status
Description	Month	Year	Qtr	SEP	OCT	NOV	DEC	JAN	FEB	MAR		
Zone 02 AFC Drawing Issue Complete	October	2020	Q3		◆						Complete	
Electrical Contract Awarded	November	2020	Q4			◆					Complete	
Z11 Production Outputs Complete	Decemeber	2020	Q4				◆				Complete	
Start Engine Room Hotwork	January	2021	Q1					◆				
Completion of car deck recesses	February	2021	Q1						◆			
complete install pipework in sub zone 0303	March	2021	Q1							◆		

802				2020 Q3	2020 Q4				2021 Q1			Status
Description	Month	Year	Qtr	SEP	OCT	NOV	DEC	JAN	FEB	MAR		
Commence Preparation Unit 3/5	October	2020	Q3		◆						Complete	
Complete preparation unit 3/5	November	2020	Q4			◆					Complete	
Erect Unit 82 at Berth	November	2020	Q4			◆					Outstanding - delayed for new dimensional survey and painting. Unit will be erected with minimal rework	
Complete preparation for unit 48	December	2020	Q4				◆				Unit steelwork has been inspected and scrapped (with the exception of the bulbous bow) Steel will be provided by centralstaal. This will be reforecast	
Commence Tank Testing	January	2021	Q1					◆				
Commence Zone 2 Pipework Manufacturing	February	2021	Q1						◆			
Commence Zonal Hotwork Programme - Zone 2	March	2021	Q1							◆		

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[redacted]

9. Schedule Overview (3)

[redacted] Programme

Zone		3D Model					Production Outputs			801				Comments	
		Start	30% Review	60% Review	90% Review	Freeze	Start	Finish	Slippage (Weeks)	Outfit Hotwork Baseline Start	Slippage (Weeks)	Outfit Pipework Baseline Start	Slippage (Weeks)		
Zone 01	Planned	18-May-20		19-Jan-20	31-Jul-20	21-Aug-20		16-Oct-20			18-Jan-21		28-Jan-21		
	Actual/Forecast	26-Jan-20		26-Jan-20	28-Aug-20	18-Sep-20		23-Jan-21	-15		14-Apr-21	-12	26-Apr-21	-13	
Zone 02	Planned	02-Mar-20		27-Mar-20	30-Apr-20	22-May-20		17-Jul-20			26-Oct-20		08-Dec-20		
	Actual/Forecast	27-Mar-20		30-Mar-20	15-Jan-20	03-Jul-20		09-Oct-20	-12		25-Jan-21	-13	16-Nov-20	3	Variation order raised to cover slippage. FMPG could not hit maturity level 90% on original dates, additional time of 5 weeks agreed by FMPG. ICR's had a major impact on this WZ. Second 90% review also held.
Zone 03	Planned	09-Mar-20		10-Apr-20	22-May-20	12-Jun-20		07-Aug-20			23-Nov-20		26-Nov-20		
	Actual/Forecast	10-Apr-20		13-Apr-20	25-May-20	10-Jul-20		27-Nov-20	-16		01-Mar-21	-14	15-Mar-21	-16	Regarding WZ03 - [redacted] Review for Zone 03 - GL3 was held on 18.05.2020. [redacted] conclusion with respect to maturity of design / 3-D Model is that 3-D Model overall progress is around 90% (multidisciplinary) and not all the disciplines achieved the 90% target: *Structural - 85%; *Arch. Outfitting - 30%; *Hull Outfitting - 75%; *Electrical - 80%; *Piping - 70%; *HVAC - 90%. @WZ2: On 27.05.2020, FM accepted 3 weeks delay for WZ03.
Zone 04	Planned	30-Mar-20		24-Apr-20	05-Jun-20	26-Jun-20		14-Aug-20			23-Nov-20		03-Dec-20		
	Actual/Forecast	24-Apr-20		27-Apr-20	15-Jun-20	03-Jul-20		06-Nov-20	-12		15-Mar-21	-16	15-Mar-21	-15	
Zone 05	Planned	06-Apr-20	08-May-20	12-Jun-20	17-Jul-20	07-Aug-20		25-Sep-20			11-Jan-21		22-Jan-21		
	Actual/Forecast	08-May-20	11-May-20	19-Jun-20	14-Aug-20	04-Sep-20		15-Jan-21	-16		04-May-21	-16	17-May-21	-16	WZ slippage due to FMPG requested break in programme to allow extra time to clear ICR's.
Zone 06	Planned	02-Mar-20	03-Apr-20	15-May-20	26-Jun-20	17-Jul-20		04-Sep-20			08-Feb-21		12-Feb-21		
	Actual/Forecast	03-Apr-20	06-Apr-20	18-May-20	10-Jul-20	24-Jul-20		15-Jan-21	-19		06-Apr-21	-8	12-Apr-21	-8	WZ slippage due to FMPG requested break in programme to allow extra time to clear ICR's.
Zone 07	Planned	16-Mar-20	16-Apr-20	29-May-20	10-Jul-20	31-Jul-20		25-Sep-20			01-Mar-21		07-Apr-21		
	Actual/Forecast	16-Apr-20	21-Apr-20	09-Jun-20	17-Jul-20	07-Aug-20		17-Dec-20	-12		22-Feb-21	1	20-Apr-21	-2	WZ slippage due to FMPG requested break in programme to allow extra time to clear ICR's.
Zone 08	Planned	25-May-20	19-Jun-20	24-Jul-20	28-Aug-20	18-Sep-20		06-Nov-20			21-Apr-21		12-May-21		
	Actual/Forecast	26-Jun-20	26-Jun-20	21-Aug-20	23-Oct-20	30-Oct-20		12-Feb-21	-14		07-Apr-21	2	27-Apr-21	2	WZ slippage due to FMPG requested break in programme to allow extra time to clear ICR's.
Zone 09	Planned	03-Jun-20	03-Jul-20	07-Aug-20	11-Sep-20	02-Oct-20		20-Nov-20			08-Mar-21		18-Mar-21		
	Actual/Forecast	10-Jul-20	31-Jul-20	11-Sep-20	06-Nov-20	06-Nov-20		12-Feb-21	-12		06-Apr-21	-4	30-Apr-21	-6	WZ slippage due to FMPG requested break in programme to allow extra time to clear ICR's.
Zone 10	Planned	27-Apr-20	29-May-20	10-Jul-20	21-Aug-20	11-Sep-20		06-Nov-20			22-Mar-21		16-Apr-21		
	Actual/Forecast	05-Jun-20	09-Jun-20	17-Jul-20	09-Oct-20	30-Oct-20		12-Feb-21	-14		21-Apr-21	-4	30-Apr-21	-2	WZ slippage due to FMPG requested break in programme to allow extra time to clear ICR's.
Zone 11	Planned	21-Apr-20	22-May-20	03-Jul-20	14-Aug-20	04-Sep-20		30-Oct-20			25-Jan-21		22-Feb-21		
	Actual/Forecast	22-May-20	25-May-20	10-Jul-20	18-Sep-20	09-Oct-20		12-Feb-21	-15		21-Apr-21	-12	20-May-21	-12	WZ slippage due to FMPG requested break in programme to allow extra time to clear ICR's.

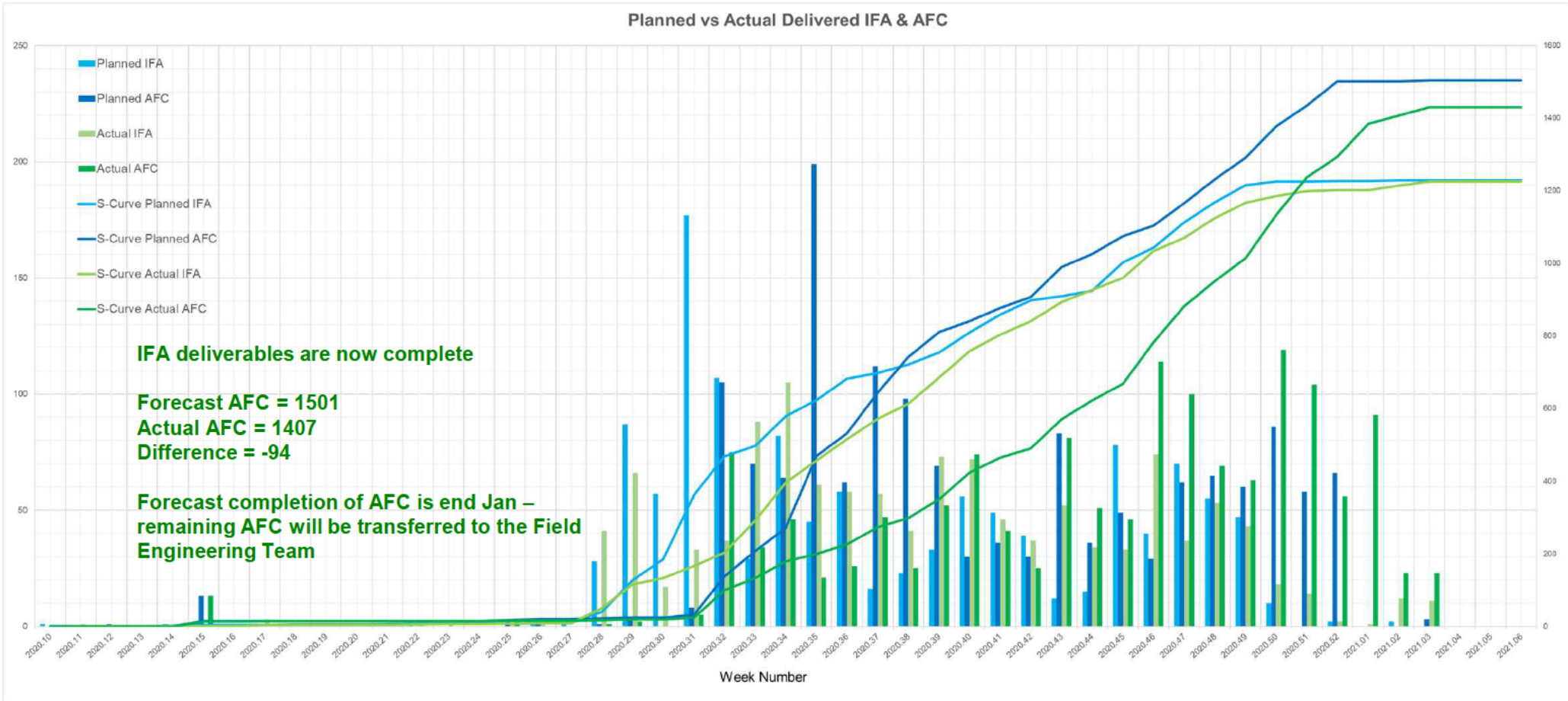
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[redacted]

9a. [redacted] /FMPG Production Output Delivery Status



[redacted]

9b. Milestone Slip Chart (Ship 801)

801 CMAL Milestones														
Baseline Date Variance	Baseline Float Comparison	Comments												
<p>Zone 2 AFC Drawing Issue Complete</p> <table border="1"> <tr><td>Baseline</td><td>31-Oct-20</td></tr> <tr><td>Current</td><td>31-Oct-20</td></tr> <tr><td>Variance</td><td>0</td></tr> </table>	Baseline	31-Oct-20	Current	31-Oct-20	Variance	0	<p>Zone 2 AFC Drawing Issue Complete</p> <table border="1"> <tr><td>Baseline</td><td>0</td></tr> <tr><td>Current</td><td>0</td></tr> <tr><td>Variance</td><td>0</td></tr> </table>	Baseline	0	Current	0	Variance	0	Complete
Baseline	31-Oct-20													
Current	31-Oct-20													
Variance	0													
Baseline	0													
Current	0													
Variance	0													
<p>Electrical Contract Awarded</p> <table border="1"> <tr><td>Baseline</td><td>13-Nov-20</td></tr> <tr><td>Current</td><td>13-Nov-20</td></tr> <tr><td>Variance</td><td>0</td></tr> </table>	Baseline	13-Nov-20	Current	13-Nov-20	Variance	0	<p>Electrical Contract Awarded</p> <table border="1"> <tr><td>Baseline</td><td>0</td></tr> <tr><td>Current</td><td>0</td></tr> <tr><td>Variance</td><td>0</td></tr> </table>	Baseline	0	Current	0	Variance	0	Complete
Baseline	13-Nov-20													
Current	13-Nov-20													
Variance	0													
Baseline	0													
Current	0													
Variance	0													
<p>Zone 11 Production Outputs Complete [redacted]</p> <table border="1"> <tr><td>Baseline</td><td>18-Dec-20</td></tr> <tr><td>Current</td><td>12-Feb-21</td></tr> <tr><td>Variance</td><td>-56</td></tr> </table>	Baseline	18-Dec-20	Current	12-Feb-21	Variance	-56	<p>Zone 11 Production Outputs Complete [redacted]</p> <table border="1"> <tr><td>Baseline</td><td>1</td></tr> <tr><td>Current</td><td>-39</td></tr> <tr><td>Variance</td><td>-40</td></tr> </table>	Baseline	1	Current	-39	Variance	-40	[redac] Current Forecast moved from 18-Dec-20 to 12-Feb-21
Baseline	18-Dec-20													
Current	12-Feb-21													
Variance	-56													
Baseline	1													
Current	-39													
Variance	-40													
<p>Start Engine Room Hotwork</p> <table border="1"> <tr><td>Baseline</td><td>12-Jan-21</td></tr> <tr><td>Current</td><td>01-Mar-21</td></tr> <tr><td>Variance</td><td>-48</td></tr> </table>	Baseline	12-Jan-21	Current	01-Mar-21	Variance	-48	<p>Start Engine Room Hotwork</p> <table border="1"> <tr><td>Baseline</td><td>10</td></tr> <tr><td>Current</td><td>-15</td></tr> <tr><td>Variance</td><td>-25</td></tr> </table>	Baseline	10	Current	-15	Variance	-25	Seats are now released to production to install
Baseline	12-Jan-21													
Current	01-Mar-21													
Variance	-48													
Baseline	10													
Current	-15													
Variance	-25													
<p>Completion of Car Deck Recesses</p> <table border="1"> <tr><td>Baseline</td><td>20-Apr-21</td></tr> <tr><td>Current</td><td>20-Apr-21</td></tr> <tr><td>Variance</td><td>0</td></tr> </table>	Baseline	20-Apr-21	Current	20-Apr-21	Variance	0	<p>Completion of Car Deck Recesses</p> <table border="1"> <tr><td>Baseline</td><td>30</td></tr> <tr><td>Current</td><td>30</td></tr> <tr><td>Variance</td><td>0</td></tr> </table>	Baseline	30	Current	30	Variance	0	The Recesses have now been released to production to install
Baseline	20-Apr-21													
Current	20-Apr-21													
Variance	0													
Baseline	30													
Current	30													
Variance	0													

[redacted]

9b. Milestone Slip Chart (Ship 802)

802 CMAL Milestones

	Baseline Date Variance	Baseline Float Comparison	Comments
Commence Preparation Unit 3/5	<p>Baseline: 27-Oct-20 Current: 27-Oct-20 Variance: 0</p>	<p>Baseline: 0 Current: 0 Variance: 0</p>	Complete
Complete Preparation Unit 3/5	<p>Baseline: 13-Nov-20 Current: 13-Nov-20 Variance: 0</p>	<p>Baseline: 0 Current: 0 Variance: 0</p>	Complete
Erect Unit 82 at Berth	<p>Baseline: 26-Nov-20 Current: 18-Jan-21 Variance: -53</p>	<p>Baseline: 0 Current: -53 Variance: -53</p>	
Complete Preparation of Unit 48	<p>Baseline: 18-Dec-20 Current: 18-Jan-21 Variance: -31</p>	<p>Baseline: 148 Current: 71 Variance: -77</p>	
Complete Preparation of Unit 4	<p>Baseline: 18-Dec-20 Current: 18-Jan-21 Variance: -31</p>	<p>Baseline: 148 Current: 71 Variance: -77</p>	
Commence Tank Testing	<p>Baseline: 29-Jan-21 Current: 29-Jan-21 Variance: 0</p>	<p>Baseline: 142 Current: 142 Variance: 0</p>	

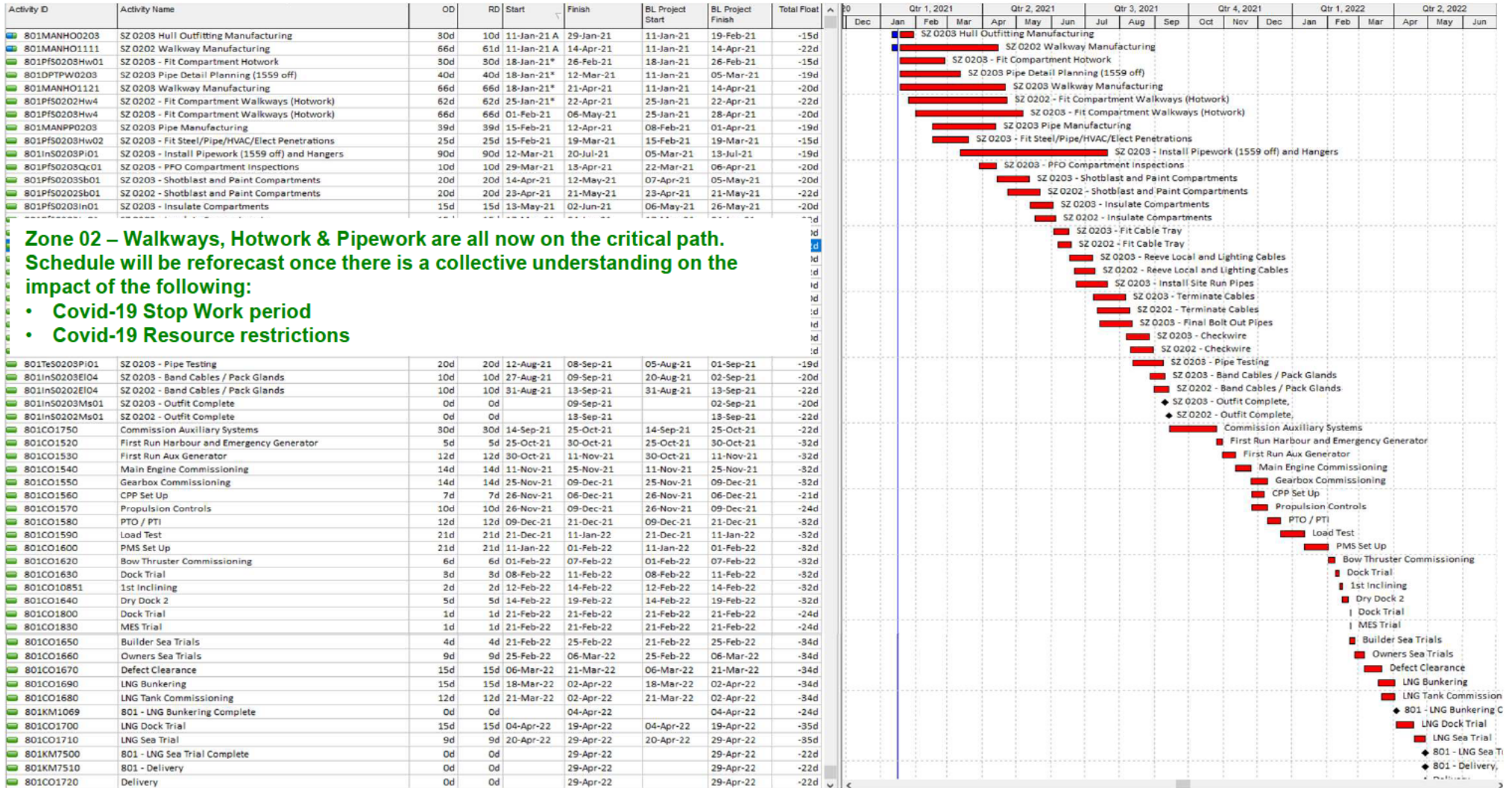
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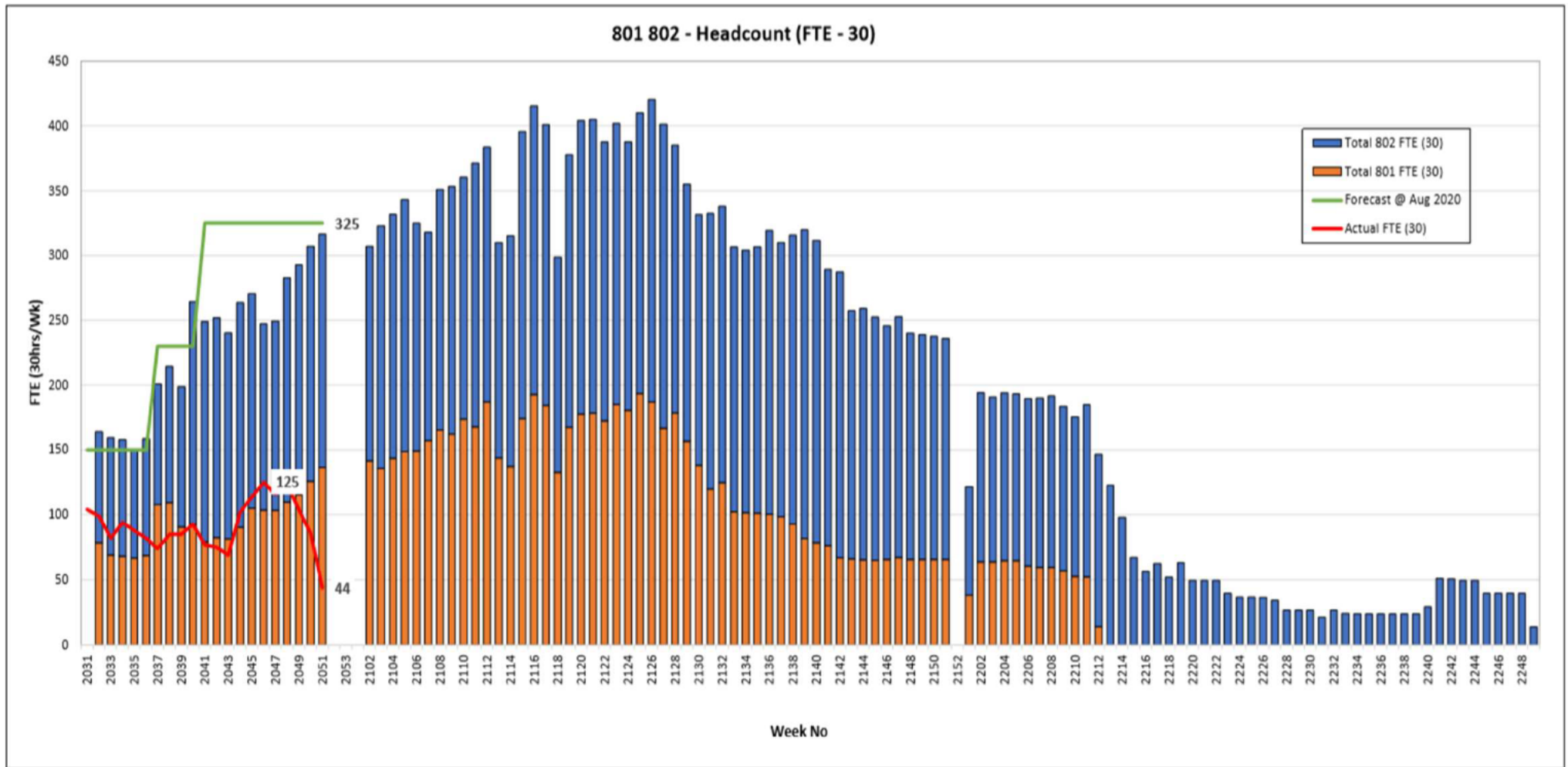
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[redacted]

9c. Ship 801 Critical path



10. Resource Profile as @ Baseline Position (Aug 2020)



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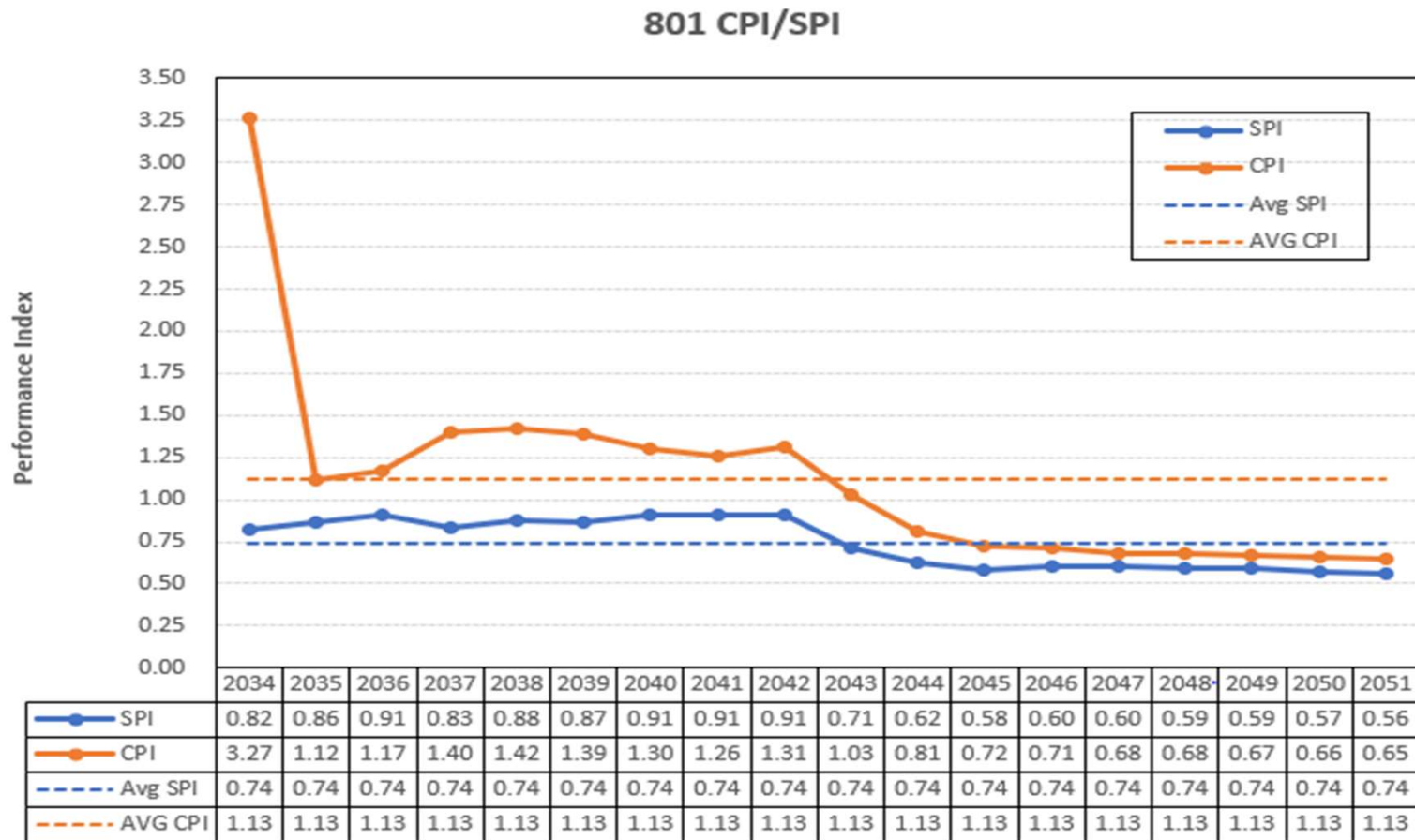
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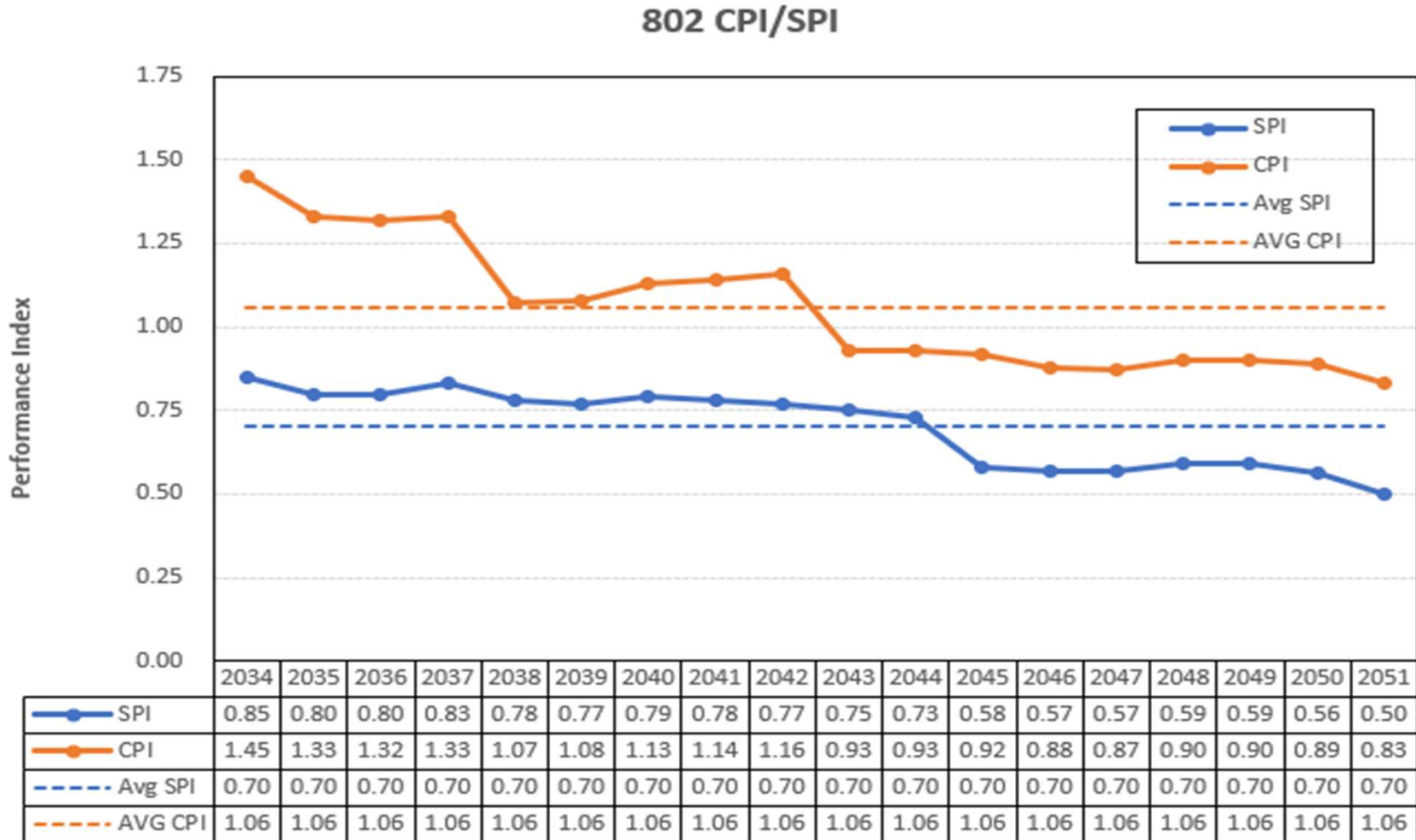
12. SPI & CPI Trends



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12. SPI & CPI Trends



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[redacted]

13. Procurement Update – Subcontractors

Supplier	Scope of Work	Forecast contract date	Status
[redacted]	Electrical design and commissioning	August - DONE	Contract executed 27 Aug'20 and POs issued for equipment and commissioning of both 801 & 802. Comms cabinet mods, navigation equipment and VDRs complete. PMS and switchboard scopes ongoing.
[redacted]	Accommodation outfit	September - DONE	Contract executed 09 Sep'20 and POs issued. Programme dates for manufacturing and installation shared and aligned.
[redacted]	HVAC	October - DONE	Contract executed 10 Oct'20 and POs issued. Programme dates for manufacturing and installation shared and aligned.
[redacted]	Power and Propulsion Equipment	November - DONE	Contract executed 19 Nov'20 and POs issued. Additional long lead time equipment ordered. UK resources performing condition survey of equipment – commenced November, will be completed in Feb (LNG and propulsion outstanding).
[redacted]	Fire Systems	December - DONE	Contract executed 22 Dec'20 and POs issued for design, equipment supply and commissioning. Engineering on going. No major long lead items of equipment.
[redacted]	Pipe Fitting Services	December - DONE	Contract executed 18 Dec'20 and POs issued. Installation programme agreed with work due to commence wkc 25 Feb 21..
[redacted]	Cryogenic Pipework	February - WIP	Technical requirements still being finalized with input from [redacted]
[redacted]	Stern Ramp, Clam Shell Doors & Car Deck Ramp Inst. & Comm. Support	February - WIP	Equipment delivered and available at site. [redacted] to provide installation and commissioning support. This has already been paid for by FMEL.

[redacted]

13. Procurement Update – Public Tenders + Outsourcing

Supplier	Scope of Work	Forecast contract date	Status
[redacted]	Pipe manufacture - subcon	September - DONE	3 providers selected from 10 bids. Contract award issued and published on PCS on 14 Sep'20. All 3 suppliers are mobilised to support volume profile. [redacted] delivered, balance of 0202 and 0203 to be delivered wkc 25 Jan 21. Zone 3 is on order with Feb delivery profile.
[redacted] [redacted]	Contract Labour	October - DONE	4 providers selected from 14 bids [redacted] Contract award issued and published on PCS in Dec 20. Project now handed over to Operations/HR for Resource Management.
[redacted]	Cable installation and termination	December - DONE	Contract award issued and published on PCS in Dec 20. POs issued for 801 survey, initial team and site mobilisation. 801 survey nearing completion.
[redacted]	Hydraulics equipment and commissioning	April - WIP	[redacted] stage 1 completed with short list of 5 selected from 11 submissions received. Stage 2 released in Jan 21. Bid deadline in Feb.
[redacted]	Pipe Fitting Services	April - WIP	[redacted] launched on PCS on 05 Jan 21. Bid deadline in Feb.
[redacted]	Raw Materials - Metals	April - WIP	[redacted] to be launched on PCS wkc 25 Jan 21.
[redacted]	Structural Insulation	May - WIP	Scope and commercial model being finalized. [redacted] to be issued on PCS Feb 21.
[redacted]	Pipe Materials	May - WIP	[redacted] to be launched on PCS Feb 21.
[redacted]	Plate Forming – Double Curvature	February - WIP	Proposal received and with engineering for final review.

[redacted]

14a. Risks – Top 10

	Risk Description	Controls in Place	Current Imp	Current Likeliho	Current Risk Sc	Action Planned	Risk Ownr	Change explanation
88	COVID-19 - there is a risk that the ongoing effect may impact the yard or its suppliers	Revised onsite social distancing and mask policies New amenities brought in to allow for increase in labour Most office staff now working from home	50	5	250	Monitor situation and enforce policies Limited return to production work from 25th Jan Full production work expected to start 1st Feb	[redacted]	Production has stopped with employees on special leave.
37	Late delivery of 801/802	Risks associated with late delivery are captured elsewhere in the risk register with planned controls.	50	5	250	1. Include a time allowance for programme slippage 2. To be reviewed due to production suspension, 801 drydock extension, and labour shortfall		Potential programme impact to 801 as a result of poor hull paint system requiring extension to second dry docking Concern around labour impact to programme Impact to programme: production suspended due to Covid-19
38	Programme launch date of 802 not met	Risks associated with late launch are captured elsewhere in the risk register with planned controls.	50	5	250	1. Include time allowance for programme slippage (same as late delivery) 2. To be reviewed due to production suspension and labour shortfall		Currently linked to 801 programme. Would need to review.
70	Insufficient capacity for pipe manufacture and installation to support the programme	Programme demand from plan based upon installation rates and compartment capacities Pipe painting facility set up in Greenock to complete painting of bought-in pipes	50	5	250	1. produce plans for subcontract of pipe manufacture - plan shows pipe made out company only closing pipes 2. produce plans for permanent and contractor installation labour plan based on yard install 3. Produce specific plan for manufacture and instalation of hydraulic pipework required to be out contracted		Subcontract framework has been placed with 3 suppliers. Further ITT has been issued to add additional capacity if required.
85	Unable to recruit or retain Production staff in the required numbers, with suitable qualifications and experience	Resource plans from revised programme, together with yard plan Allowance against market rates reviewed.	50	5	250	1. Include allowance for potential increase 2. Part of annual wage negotiations 3. Develop the programme resource demand 4. Produce a yard resource plan showing all projects 5. Develop a resource supply strategy		1. Increases are included in the wage negotiations. 2. In progress 3. This is being undertaken by [redacted] 4. Produced by planning but not effective and needs rework.

[redacted]

14b. Risks – Top 10 continued

	Risk Description	Controls in Place	Current Imp	Current Likeliho	Current Risk Sc	Action Planned	Risk Ownr	Change explanation
14	Level of rework not sufficiently scoped. Known rework not fully scoped. Unknown rework will occur particularly during the test and commissioning phase	CNs and 200 series included in programme Change control process implemented. OORs incorporated into model	50	5	250	1. Completion of re-baseline evaluation 2. Allow additional time in the commissioning programme	[redacted]	Rework is being separately identified through planning rework codes There is further rework being identified on 801 in the vehicle deck compartments OORs being reviewed
22	Workpackaging arrangements not robust enough to control properly the work sequence and capturing performance	Work packages for fabrication, hotwork and pipe manufacture are now being issued with material identified. Kitting of pipes for 0201 completed	50	5	250	1. Introduce a process for workpackaging 2. Improve the organisation to deliver the new process		External piping manufacture for 02 complete, 03 on order with delivery expected mid February
46	Vessel cannot meet contract deadweight	Lightship weight continues to grow	50	5	250	1. Continue to limit weight growth wherever possible and practical 2. Commercial impact subject to the contract provisions		New NA lead will drive updated weight calculation. [redacted] will be contracted to supply information for newly modeled items.
84	Impact to the programme of the implementation of the Public Procurement process	Procurement plan in place	50	5	250	1. Increase procurement headcount 2. Allow for time in the programme		Public Procurement process is embedded in the business.
55	Failure of equipment during warranty period. Supplier guarantees have expired	Warranty controls and spreadsheet is live to allow ongoing review of current position	50	5	250	Warranty review meeting completed and information shared on all live warranties: where warranty is no longer able to be extended [redacted] a care and maintenance plan will be put in place.		[redacted] back on contract. Survey's ongoing to define care and maintenance required.

[redacted]

16. Weight

Weight report will be updated ASAP.

Info from [redacted] is being used to replace previous estimates.

[redacted] generated estimates require to be validated during next unit lift.

17. CMAL Comments to the Monthly Report

CMAL Comments:

- 1. It is clear that in Q4 2020 and in January 2021 that the number of workers deployed on the vessel is far short of that required to meet the latest delivery windows of H801/H802. This has been recognised by FMPG in regular update meetings. We understand that a combination of COVID impacts and also the struggle to employ the quantity of local labour that there is now a real and apparent risk that the delivery dates will need to be further revised. It is noted that FMPG are aiming to update the programme by the end of February 2021.**
- 2. There is uncertainty as to whether the current slippage (in some areas being up to 16 weeks (according to the schedule) can be recovered.**
- 3. We note that already the delivery date for 802 , within the window of Dec 2022 – Feb 23, is showing a date of 27th February 2023 – the penultimate date within the current window.**
- 4. There is yet to determined rework and this needs to be identified as soon as possible as again this will impact programme.**
- 5. There continues to be uncertainty regarding the lightship weight (14b – Risks and 16 – weight) – this has a bearing on deadweight which is a critical metric given that it determines the vessels payload. This is a concern.**
- 6. Discussions are continuing regarding the underwater paint on H801 as witnessed in the drydock Aug/Sept 20. Addressing this matter at the guarantee dry dock will not be accepted.**
- 7. The legacy of pipework in the Engine Room spaces on vessel MV Glen Sannox remain far from optimal. Throughout 2020 there were numerous detailed design meetings that did not yield any significant changes as these would have caused both cost and time impacts regarding the project. It remains the case that future maintenance of any defects that occur with the pipework in the engine room spaces are likely to be very complicated and time consuming to fix. We will discuss further, at a local level, to identify any improvements that can be achieved.**
- 8. Overall we consider that there is a medium/high likelihood that the delivery windows for both vessels will be required to be revised and that this could include new delivery windows that are later than currently predicted.**

17. Appendix

801/ 802's QLA

- **QLA's are now kept in the same folder as the Monthly progress report.**