

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

Programme Director: [Redacted]

Review Period: January 2022

<u>Name</u>	<u>Job Title</u>	
[Redacted]	Programme Director	
[Redacted]	CFO	
[Redacted]	Head of Planning	



Contract Summary

Customer	Scottish Government	Contract Start	Contract Effective Date - 1st April 2020
Agreed Contract value	£110.3M - £114M	Contract Finish	801: 25 July 2022 – 25 September 2022 802: 3 April 2023 - 3 July 2023
Project Type	Design and Build	Forecast Finish	801: 25 July 2022 – 25 September 2022 (UNDER REVIEW) 802: 3 April 2023 - 3 July 2023 (UNDER REVIEW)
Programme Director	[Redacted]	Contract Type	Fixed Price

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. from the date of 16 th August 2019, being the date of Administration of FMEL
Significant Project Changes	None (in this phase).
Acceptance Criteria	As per the specification.
Payment Terms	Monthly payment application for Actual costs incurred in the previous calendar month
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	

Health & Safety

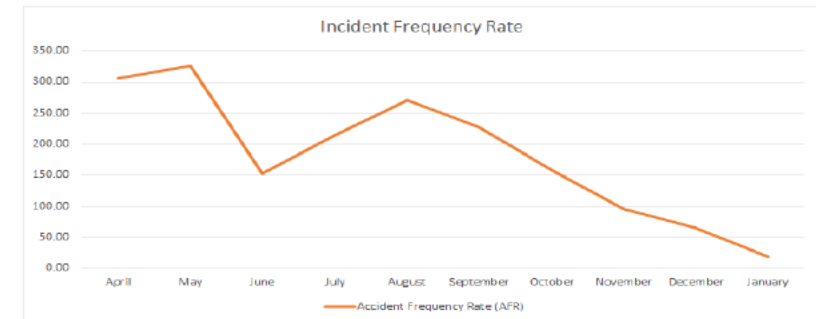
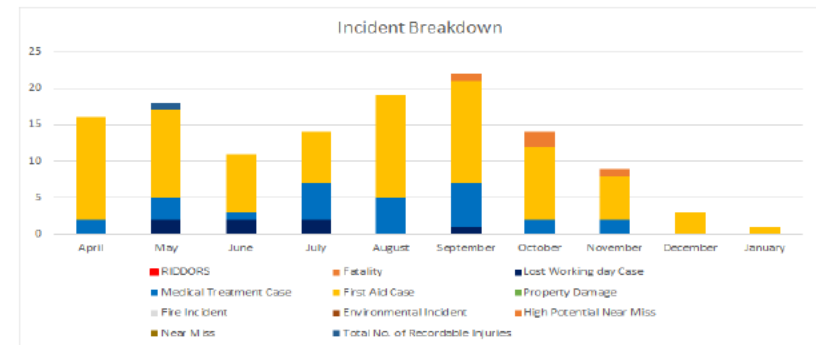
Highlights

- Lifting Manager engaged and started 31st January 2022
- Covid-19 cases decreasing towards end of period, we continue to monitor the potential impact of Omicron and subsequent government guideline changes.
- Current H&S systems, capability and performance gap analysis underway, report by end Q1 with roadmap for change
- Only one incident reported, low attendance first two weeks will have affected this. -
- Source of Injury: Collision with Scaffold Manual Handling
- Trade: Engineer. - Stood up after inspecting a pump foundation and struck his head on nearby scaffold, causing cut to the rear of his head.

Moving forward :

- Near miss register developed and several reporting methods, plus awareness to highlight the importance of near miss reporting.
- Focus on cleanliness onboard particularly in tight spaces.
- Recruiting ongoing for a PTW Supervisor, HSE Manager and HSE Advisor

	This Month	Cumulative
RIDDORS	0	0
Fatality	0	0
Lost Working day Case	0	7
Medical Treatment Case	0	26
First Aid Case	1	91
Property Damage	0	1
Fire Incident	0	0
Environmental Incident	0	0
High Potential Near Miss	0	4
Near Miss	0	2
Total No. of Recordable Injuries	0	1



Traffic Light Report

	Overall Status		Future Trend	Comments
	Dec 21	Jan 22		
Overall Status	A	A	↔	• Programme is under review.
Safety	G	G	↔	• Permanent Head of HSE agreed and commences week 1, 2022. Priority H&S actions continue to receive attention.
Cost	G	A	↔	• Project Cost forecast is being continuously monitored but the cost is at risk due to the Programme reset and review.
Schedule	A	R	↔	• Programme under review.
Quality	A	A	↔	• Increased incident rate of Work in Progress quality concerns, number of site visits with client jointly reviewing and currently being investigated.
Customer Relationship	G	G	↔	<ul style="list-style-type: none"> • Rules of Engagement, renamed "Terms of Reference" have been agreed and sent to CMAL for signature. • The Buyer's Representative letter contradicts the Terms of Reference and question raised to [redacted]
Technical	A	A	↔	<ul style="list-style-type: none"> • Working with CMAL to conclude reviews on all P&IDs – good progress at first review • Stair width risk – initial concession request to MCA has been rejected and will be reworked and resubmitted. • Stability results will require concession from CMAL. • Crank case breather location likely to reach a satisfactory solution. • Open OORs being worked through to identify solutions.
Supply Chain	G	G	↔	
Operations	A	A	↑	<ul style="list-style-type: none"> • [Redacted] now have 100+ employees on-site - making a positive impact on progress of hotwork packages. • Focus is on completing 801 hotwork packages
Commissioning	A	A	↓	<ul style="list-style-type: none"> • Commissioning planned start expected in Feb but delayed due to cable issues • 19 test forms outstanding • Additional support for the team may be available from BAE
Risk Management	A	A	↑	• The Risk Register has been refreshed and an internal review completed, first review with CMAL on Top 20 has been completed.

CMAL Updates

- 10 point of concerns (AC email to TH 10 Dec 2021)
 - Response to the 10 Points of Concern raised by CMAL has been responded by FMPG on 7 Feb.
- Plans to remedy OORs on the vessel
 - Successful meeting on 9 February and we continuing to scope and action these.
- Risk Register status
 - First review of Top 20 has been undertaken with CMAL. The risk register is being updated to reflect agreed changes
- Update on revised main project plan
 - This is under review
- Update on revised commissioning plans
 - This is under review
- Update on training plan for crew
 - No update at this time.

CMAL Updates

- List of spares and tools
 - No update at this time.
- Machinery list and serial numbers
 - No update at this time.
- FMEA
 - The requirement is within the propulsion section of the spec that “The Builder will carry out an FMEA at the earliest opportunity to identify key areas where back up is required.”
 - An FMEA was carried out and issued in February 2018, this was revised in 2021 but not reissued.
 - There have been additional refinements to the control of the propulsion system since 2021 and a minor update to the FMEA is required to note those changes.

CMAL Updates

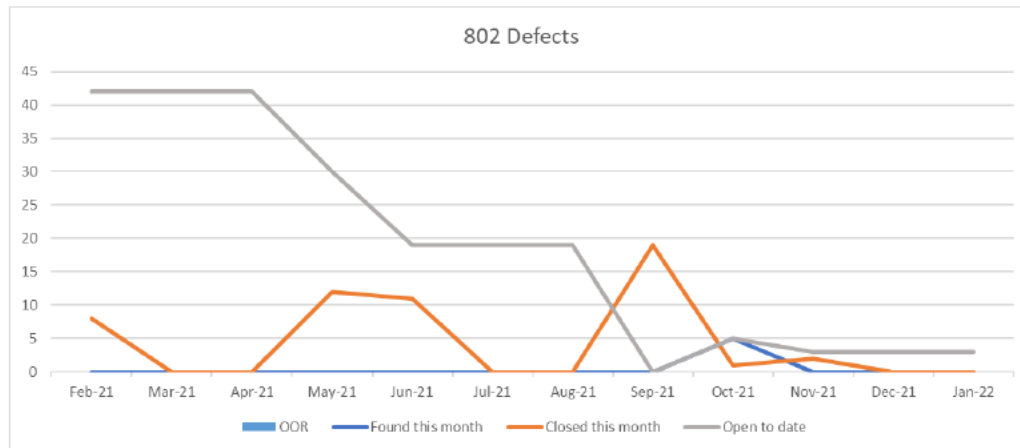
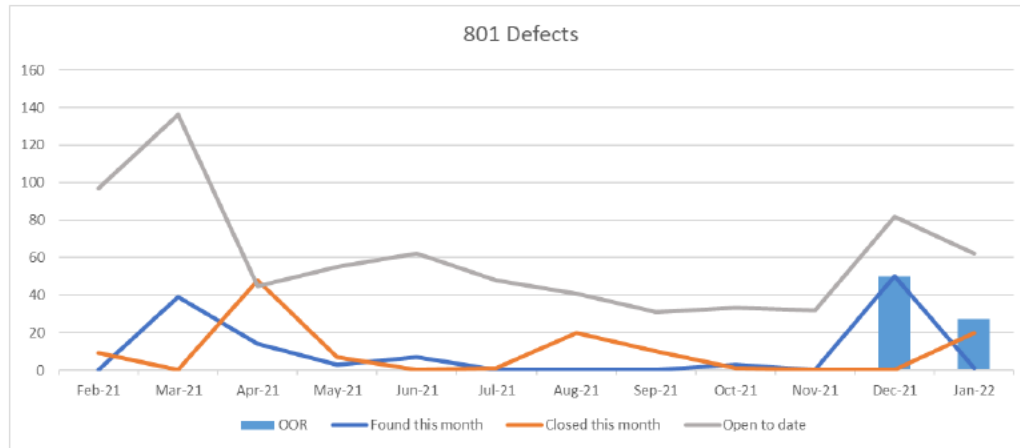
- **Ships' Operational manual. OEM operating and training manuals, system drawings, for CalMac crew**
 - The DRAFT Operating Manual was issued to CMAL on 17 December 2021
 - When will CMAL be reviewing this and providing feedback?
- **Update on 802 planned launch date**
 - The 802 Plan is being reviewed and a revised plan will be issued following the revised plan for 801
- **LNG - plans for bunkering**
 - The commissioning team and one of our naval architects are attending an LNG training course w/c 7th February.
 - The training undertaken has helped identify work to be done. This will be reviewed w/c 14th Feb to identify the actions we need to take.

CMAL Updates

- Ship's security, electronic door key system, reviewed by MCA?
 - Under review.
- Status of electrical single line diagram - cables installed
 - SLD's are available for marking up and we hold a database of cables and track what is being fitted.
- Wheelhouse consoles - equipment strip out and reinstatement, approvals of panels
 - The layout of the panels has been approved by CMAL and 802 panels are being modified in the Greenock Warehouse. 801 panels shall be modified when all dirty works have been completed in the wheelhouse.
- Joint review of main programme % completion
 - This is ongoing and a team from FMPG and CMAL are working together to gain a common %age completion.
- 802 – Remaining equipment FATs
 - No further FAT's to complete.

Quality

5. Quality – Tracking of 801 & 802 Formal Internal QC Surveys and OOR's



OOR's that have been reviewed and identified as actual defects have now been included within the Defect Reports. These will be tracked to closure with QC Teams with the defect owners, then reviewed with CMAL for closure verification.

20 OOR's closed

801 –

Aft extensions – Port side and Stbd side – Pre- Survey / Dry Survey / MPI completed.

Deck 6 Partial Pre-Insulation check completed.

802 –

Unit A6/5 Pre-Survey and Dry Survey, Dye Pen completed. Approved by Lloyds and CMAL

Unit 85/86 – Survey for welders volumetrics complete.

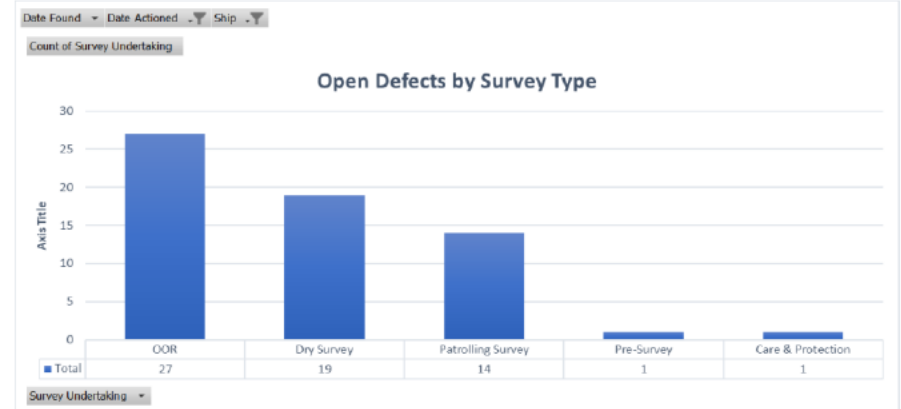
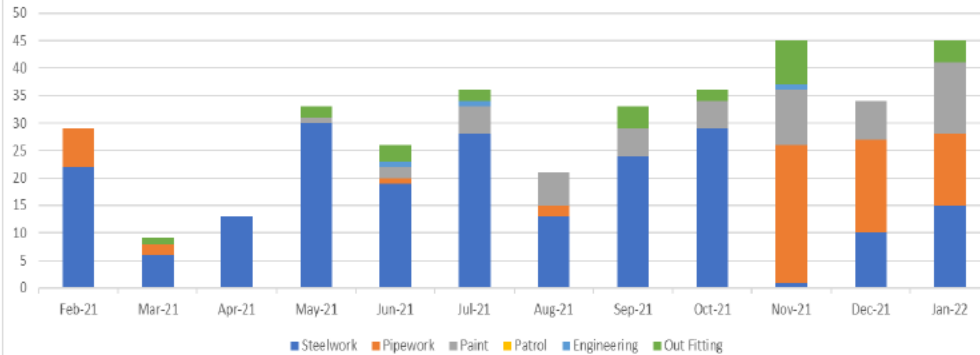
Starboards Shell Inserts Surveyed and MPI's. Approved by Lloyds and CMAL

Unit 50 and 51, part survey complete. 10 % MPI conducted

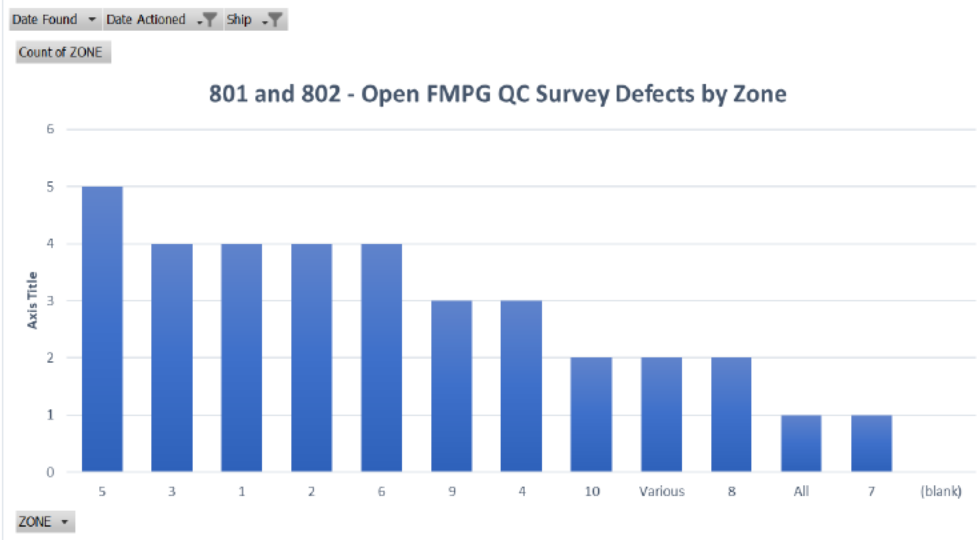
Quality

5. Quality Dashboard – 801 & 802 Formal Internal QC Surveys

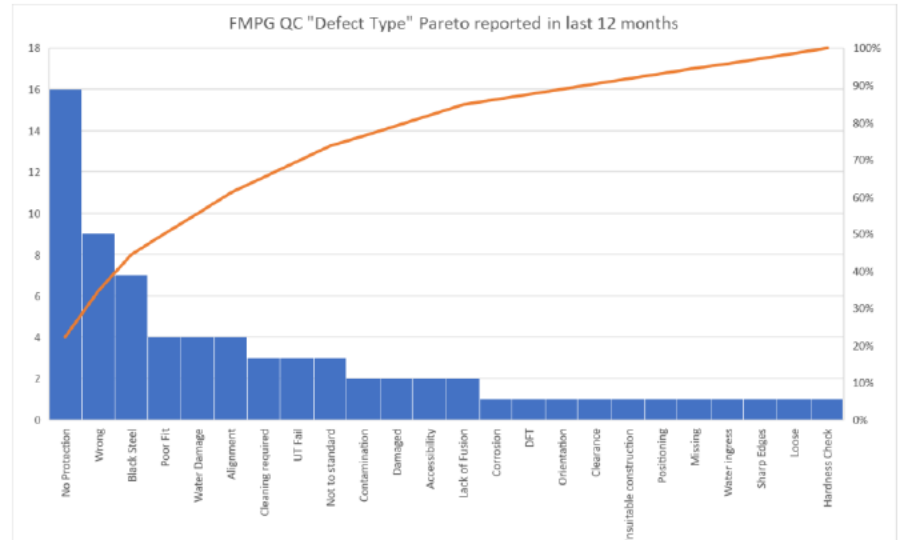
FMPG QC Surveys by discipline



801 and 802 - Open FMPG QC Survey Defects by Zone

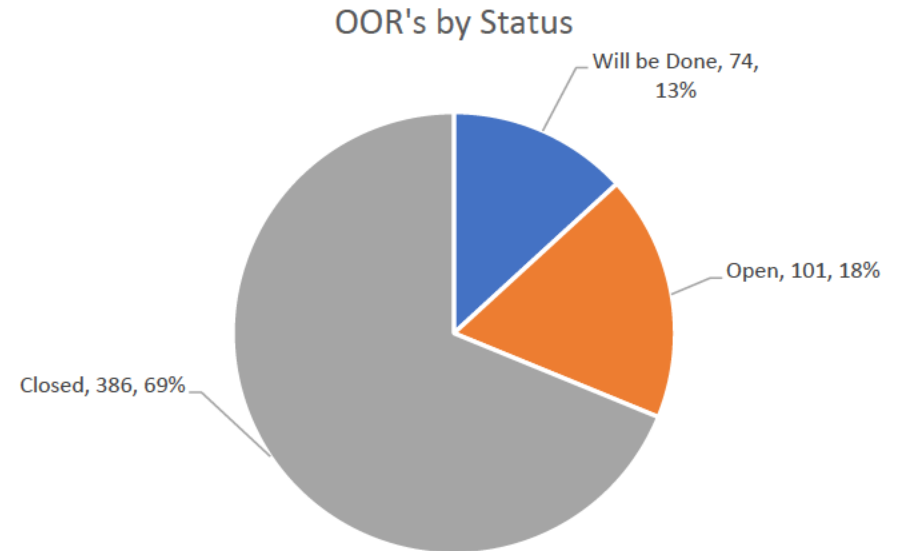


FMPG QC "Defect Type" Pareto reported in last 12 months

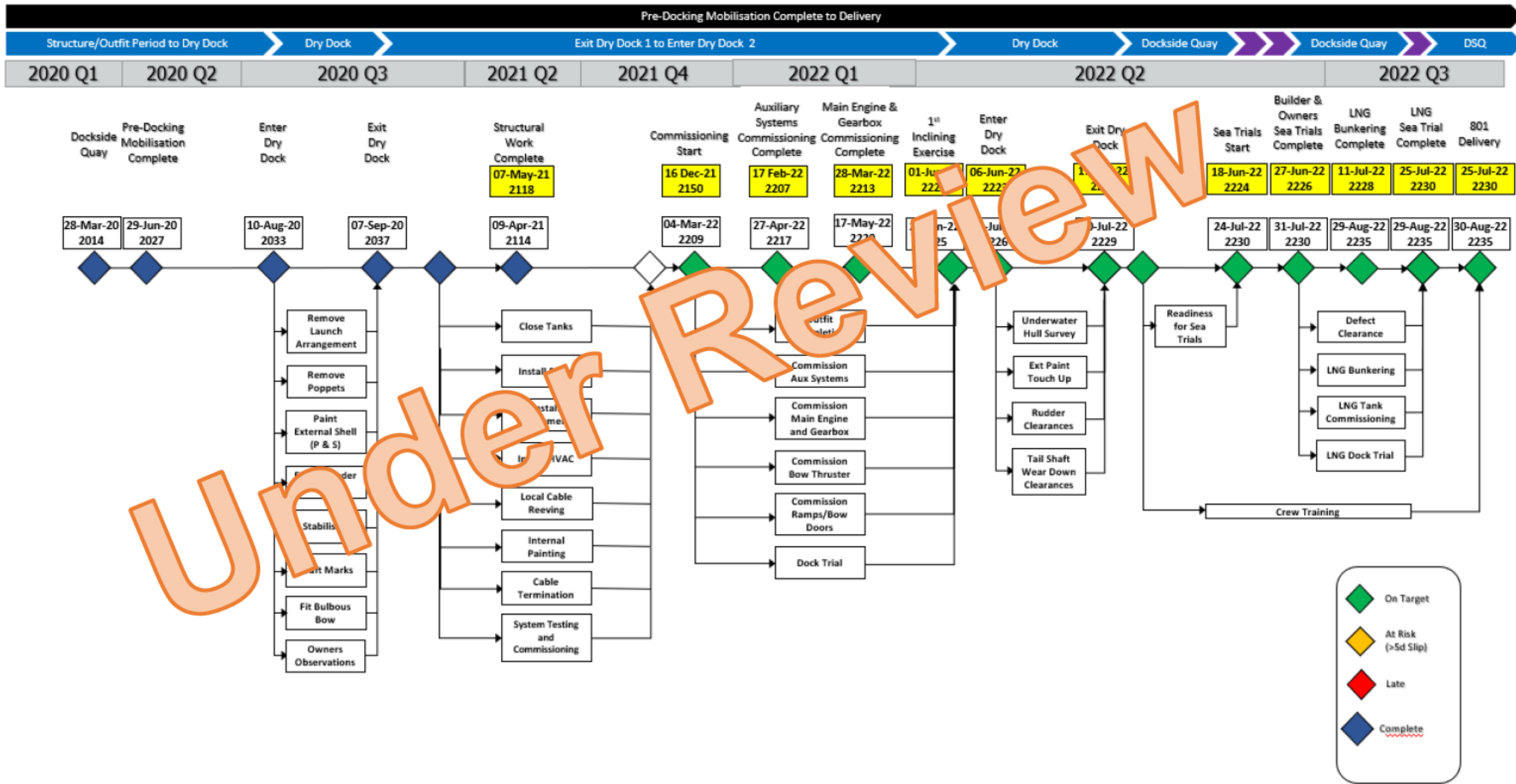


OOR Review

	End December	End January
TOTAL OOR's	549	561
TOTAL CLOSED	340	386
TOTAL IN PROGRESS	72	74
TOTAL UNDER REVIEW	137	101



801 Milestones

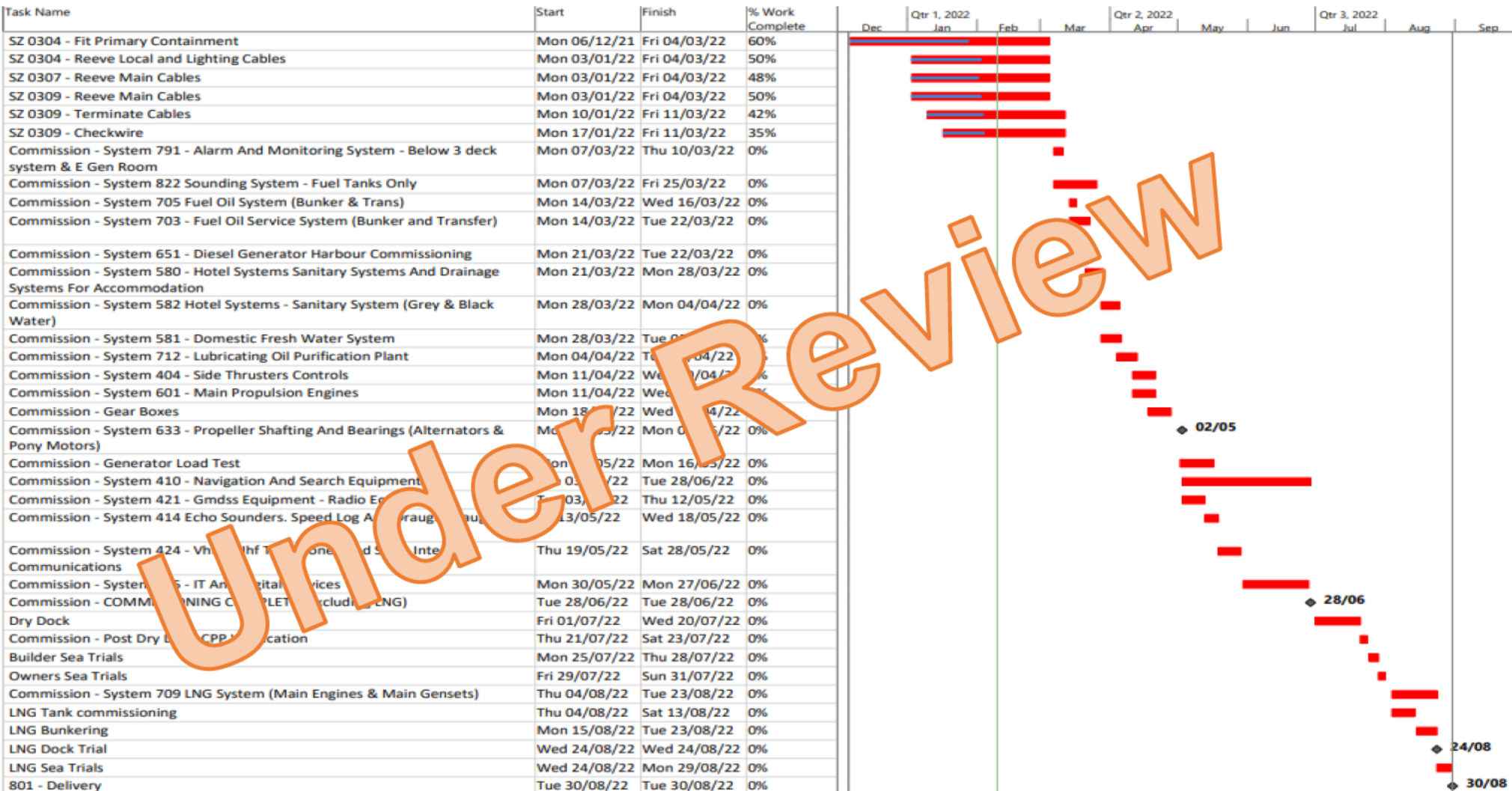


801 L2 Schedule – Sub Zone Level



Under Review

801 Critical Path



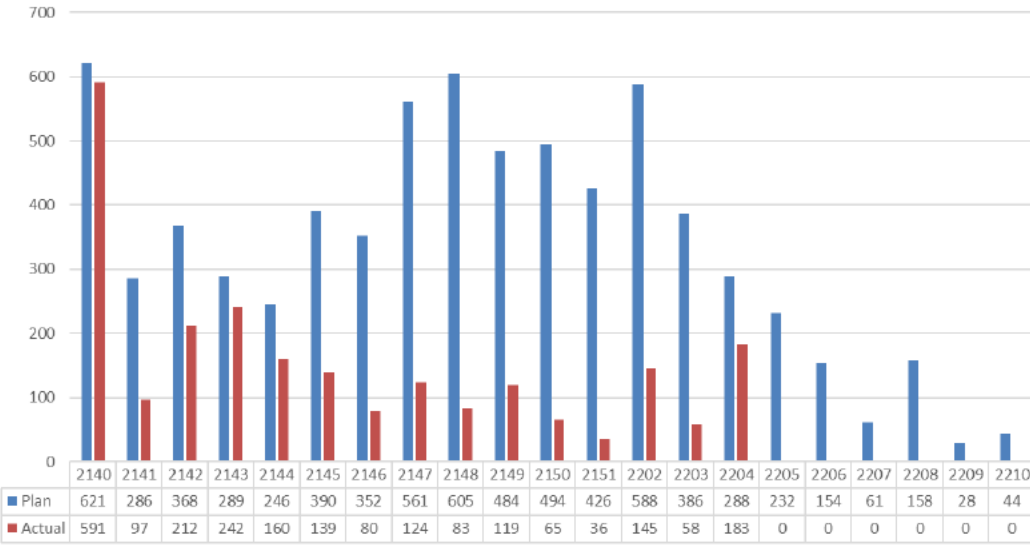
Under Review

801 Trades

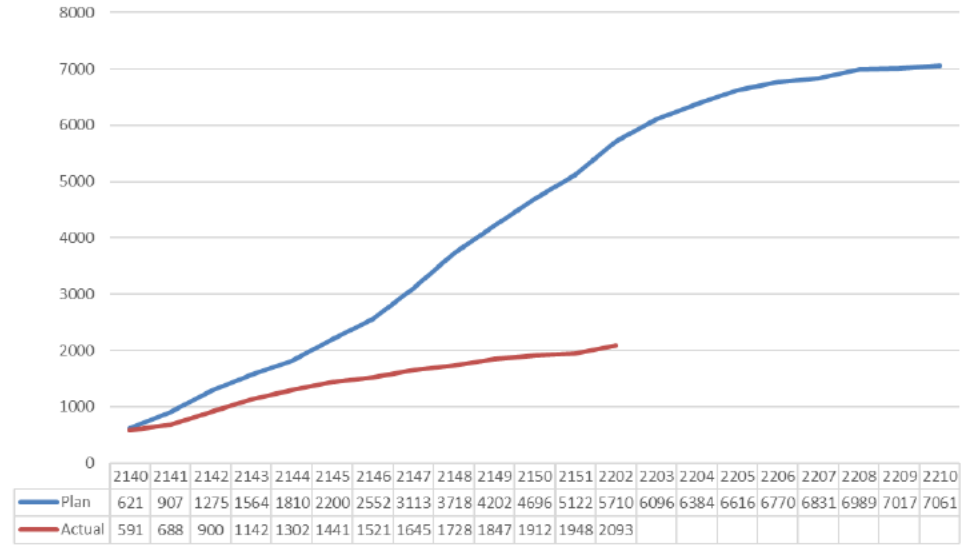
	Status		Comments
	Quality	Schedule	
Steelwork	G	A	<ul style="list-style-type: none"> Hull Outfit (HO) steelwork & Pipe spool manufacture being progressed through Manufacturing & Subcontract facilities, majority of material now available to ship to progress to completion [Redacted] ramp up in January complete, now 100+ on site, 70+ welders platers assigned to 801 HO Steelwork progress against plan being monitored closely
Pipe Installation	G	A	<ul style="list-style-type: none"> Volume of change from modifications sheets understood and modifications underway, materials available or on order. Plan for system completion for commissioning is in place Weekly review in place on key commissioning systems completion Installation continuing in Zones 1,2,3,4,5,7,8,10 Additional resource has been agreed and POs placed
Electrical Installation	G	A	<ul style="list-style-type: none"> More workfaces opened to B-GEN Cable pulling is underway Switchboard clean planned & PO placed Acceleration plan agreed with B-GEN ECR / Main switchboard changes underway [Redacted]
Upper Decks Insulation & Outfit	G	G	<ul style="list-style-type: none"> Pinning & insulation progressing Cable ladder installation progressing Bonding of windows Deck 6 windows under review with subcontractors
HVAC installation	G	A	<ul style="list-style-type: none"> Deck 5 installation continues
Hydraulic Pipe manufacture & install	G	G	<ul style="list-style-type: none"> [Redacted] progressing installation
Structural Insulation	G	A	<ul style="list-style-type: none"> Access to areas being agreed as hotwork packages complete
LNG Installation	G	A	<ul style="list-style-type: none"> Installation underway Cryodiffusion return delayed by isolation requirements Tank tie in philosophy developed with [Redacted] to construct RAMS. System flushing / cleaning procedures and SOW in development

801 Pipe Installation

801 Remaining Pipe installation



801 Remaining Pipe installation



- Forecast revised to align with programme
- Additional Pipe Install resource calculations complete, PO placed
- Data available to split out site runs
- Pipe shop WPs being progressed- zone 4 being actioned

801 Hotwork

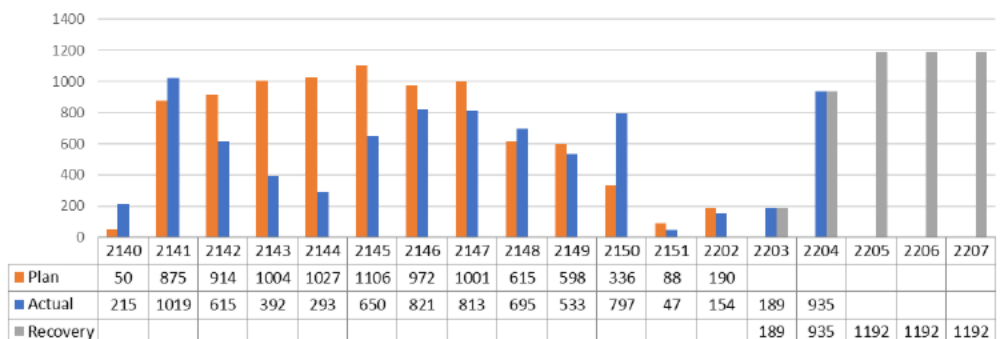
%age progress overall								
Zone	Major Seats	Elect Seats	Lift Eyes/ M.Rails	PipePens (Cut)	Elec Pens (Cut)	HVAC Pens (Cut)	WW/Stairs/ Pltfms Ldrs/Rails	Struct/ Sketches
1	97%	100%	100%	81%	100%	100%		100%
2	100%	100%	100%	97%	100%		63%	100%
3	100%	100%	83%	94%	90%	100%	15%	80%
4	100%	100%	100%	53%	73%	100%	58%	100%
5	100%	37%	76%	25%	0%	50%	21%	0%
6	75%	78%	22%	25%	22%	41%	5%	54%
7	71%	19%	0%	62%	48%	0%	0%	76%
8	25%	0%	100%	17%	86%	81%		10%
9	0%	47%	100%	5%	93%	86%		0%
10	25%	17%	29%	20%	69%	57%	50%	6%
11	91%	0%		0%	21%	100%		100%

82%	69%	82%	35%	53%	61%	33%	44%
-----	-----	-----	-----	-----	-----	-----	-----

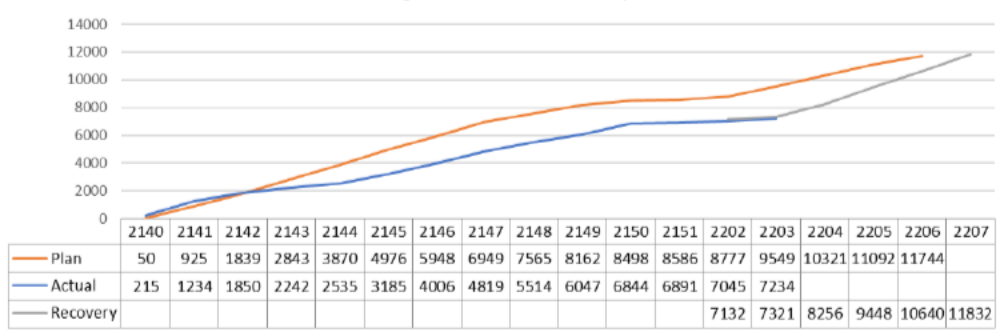
%age progressed in week								
Zone	Major Seats	Elect Seats	Lift Eyes/ M.Rails	PipePens (Cut)	Elec Pens (Cut)	HVAC Pens (Cut)	WW/Stairs/ Pltfms Ldrs/Rails	Struct/ Sketches
1	0%	0%	0%	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%	0%	0%	0%
3	0%	0%	0%	1%	0%	0%	1%	0%
4	0%	0%	0%	0%	0%	0%	0%	0%
5	0%	0%	0%	0%	0%	0%	0%	0%
6	0%	14%	0%	3%	13%	4%	0%	5%
7	0%	0%	0%	0%	0%	0%	0%	0%
8	0%	0%	0%	11%	0%	0%	0%	0%
9	0%	1%	0%	5%	0%	6%	0%	0%
10	0%	0%	-71%	0%	0%	0%	0%	6%
11	0%	0%	0%	0%	0%	0%	0%	0%

- Grey bars on graphs below are recovery plan with ramp up of [Redacted] resource coming back on site to achieve all hotwork. To recover plan need to achieve 1192 hours each week for next 3 weeks. (To recover down days will now need an extra 4 heads, [Redacted] resource is available to 801)
- Reporting Progress is fundamental
- Revised Overall Hotwork hours to be provided for next meeting

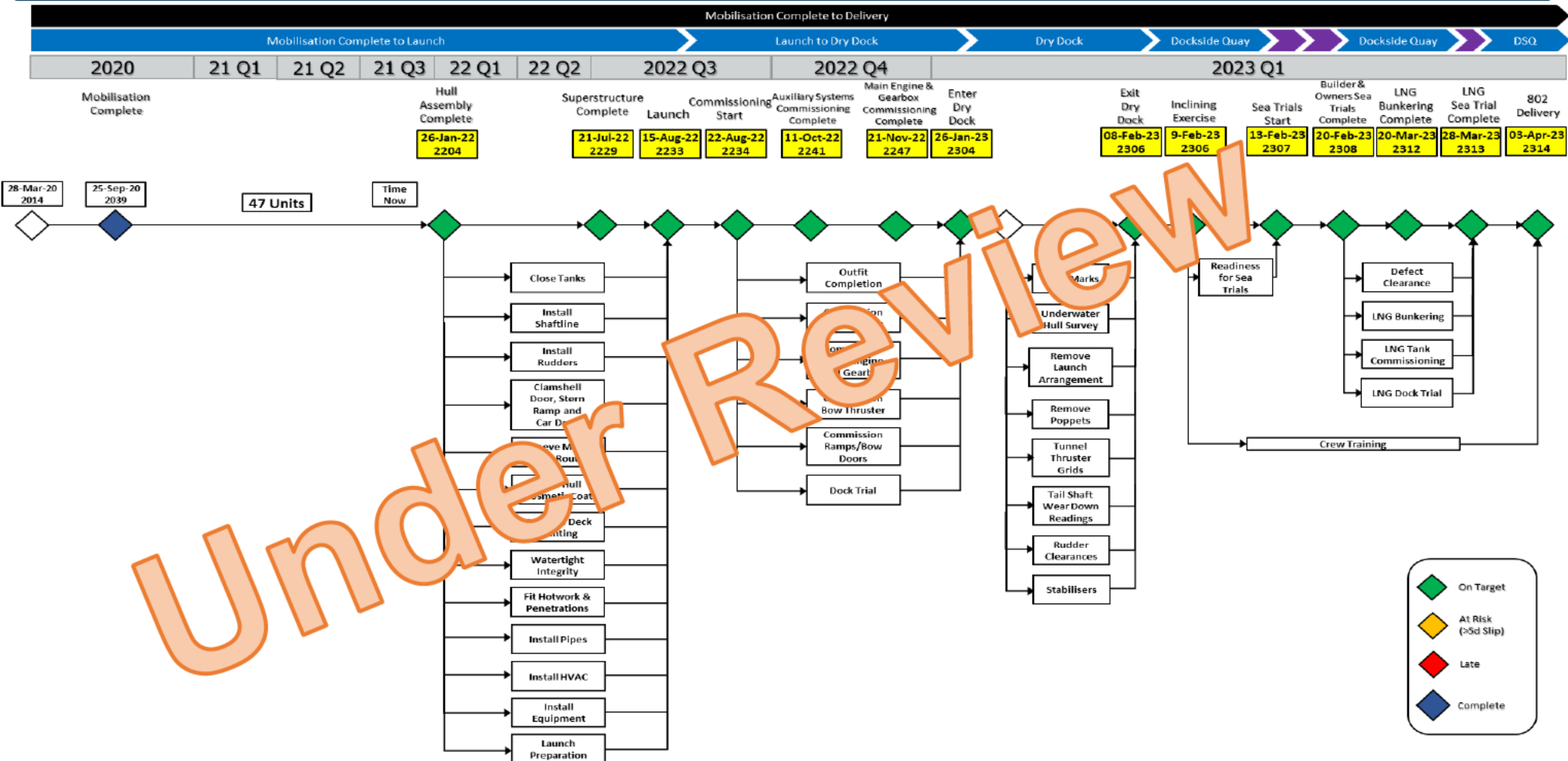
801 Pre Commissioning Hotwork Hours - weekly Performance



801 Pre Commissioning Hotwork Hours Completion Cumulative



802 Milestones



Updated 30th Sept 2021

802 Trades

	Status		Comments
	Quality	Schedule	
Steelwork	G	A	<ul style="list-style-type: none"> • HO steelwork being progressed through Manufacturing & Subcontract facilities. • Units 85/86 & 49/50/51 being progressed in Shed. • Unit 47 nearing completion ready for Ship erection. • Units A/75 & A/95 being progressed in Shed. • Fenders being progressed. • Ducktail - Lloyds have approved the proposal for the Chine Bar, material has been ordered. Now awaiting Final decision on ducktail fitment. • Resource has been constraint.
Pipe Installation	G	A	<ul style="list-style-type: none"> • [Redact] have commenced marking out pens to be cut in zone 2.
Electrical Installation	G	G	<ul style="list-style-type: none"> • No current issues impacting cost, schedule or quality.
Upper Decks Insulation & Outfit	G	G	<ul style="list-style-type: none"> • No current issues impacting cost, schedule or quality.
HVAC installation	G	G	<ul style="list-style-type: none"> • No current issues impacting cost, schedule or quality
Hydraulic Pipe manufacture & install	G	G	<ul style="list-style-type: none"> • No current issues impacting cost, schedule or quality
Structural Insulation	G	G	<ul style="list-style-type: none"> • Initial pinning has commenced
LNG Installation	G	G	<ul style="list-style-type: none"> • All materials now onsite. • Installation date will be confirmed after review of plan.

Learning from Experience

We are holding weekly meetings looking at how we Learn from Experience from 801 and opportunities improving 802 moving forward. Some issues/opportunities raised to date:

Ref	Subject	Raised by	Date Raised	801	802	Action	WHO	Completion date
18	Outfit	AC	07/12/2021	Access issues in funnel area, outfit completion an issue.	Review build strategy	Review build strategy	Planning/Operations	01/03/2022
19	Outfit	AC	07/12/2021	No floorplates fitted in walkways	Is there an option to fit earlier in the outfit sequence	Review outfit build strategy	Planning/Operations	01/03/2022
20	Care & Protection	AC	07/12/2021	Bellows damaged (OOR raised) (NC) Req raised.	Correct protection process in place	Review current process, implement necessary improvements. Use 801 redundant on 802.	Manufacturing Engineers	21/02/2022
21	Care & Protection	SM	07/12/2021	Care and protection	Reviewing process ship wide	Review current process, implement necessary improvements	Manufacturing Engineers	28/02/2022
22	Outfit	AC	07/12/2021	20+ doors incorrect information on drawings (CR330)	Correct Drawings to be issued before fitment	Track CR	CG	17/02/2022
23	Outfit	AC	21/12/2021	Passenger handrails 6/7 decks incorrect	Review and update drawings before issuing	Review drawings	Engineering/Paul Ross	14/03/2022
24	Outfit	AC	21/12/2021	Windows triple glazed not double as spec	Already ordered and started to fit	Clarify if 802 will be triple	Engineering	01/02/2022
25	Structural	AC	21/12/2021	units 49/50/51 Ram lugs both fully welded, now need reworked	1 to be fully welded 1 tacked in position only	Inform Ops team, review build sequence	Planning/SM/JG	17/02/2022
26	Structural	AC	21/12/2021	built in ducts HVAC not fitted on 801	Started to fit in shed, fit on ship before launch as much as possible	Review build strategy	Planning/Operations	01/03/2022
27	Maintenance	CR	21/12/2021	Preservation on equipment not carried out	Review process	Review process	Manufacturing Engineers	28/02/2022
28	Outfit	AC	21/12/2021	Issues with door fitment	fitted earlier in build	Review process	Manufacturing Engineers	03/03/2022

Weight

- Current predicted weight is 3562t (was 3558.5 in last updated). Target weight is 3553 tonnes.
- This increase of 3.5 tonnes is due to improving accuracy of estimations.
- 124 tonnes remains to be validated
- Total validated amount is 3,448.1 tonnes, 96.5% of total
- We still have 58 tones of contingency in our total predicted weight.

Engineering – Basic Design Status – Lloyds status at 10/2/22

Under review at Lloyds	Date Sent to LR	note
Nitrogen System	15/12/2021	held up by LNG comments
Fore End Structure IWO Bow Thrusters	18/11/21 (To local), a	LR are late
LNG System For ME & DF Gen Sets (Superseded M-519-797-3101-01 to 03)	15/12/2021	comments returned
Heating System	13/12/2021	held up by LNG comments
Glycol System	15/12/2021	held up by LNG comments
Freeboard / External Watertight Integrity Plan	[Redacted]	LR want MCA to review
Exposed Deck Scupper & Drains Arrgt	[Redacted]	LR are holding to do with the heating system
Exposed Deck Scupper & Drains Arrgt	[Redacted]	LR are holding to do with the heating system
Anti Fouling Plan	[Redacted]	[Redacted]
To be submitted to Lloyds (in work)	Expect to complete	note
Damage control plan	[Redacted]	After stability work concludes
Cargo Securing Manual	[Redacted]	waiting info from CMAL

Lloyds say we need a new contract and are failing to send me it. That is holding up a small number of items.

Engineering – Basic Design Status – MCA status at 10/2/22

Under review at MCA	Date sent to MCA	Note
Structural Fire Protection Plan	End Jan	
Fixed Fire Extinguishing Syst. ECR & Pipes, Cables Transformer Room	04/11/2021	MCA late - now expect 18/2/22
Fixed Fire Extinguishing Syst. Server Equip. Rm - Deck 7	04/11/2021	MCA late - now expect 18/2/23
Fixed Fire Extinguishing Syst. Emergency Diesel Generator room	04/11/2021	MCA late - now expect 18/2/24
Fire Door, Damper & Patrol Point Monitoring Dk.7 to Dk. 1 Gen. Arrgt	26/10/2021	MCA late - no predicted date
To be submitted to MCA (in work)	Expect to complete	Note
Tank & Capacity Plan	Complete	Waiting on LR review
Stability book	Draft in Early 2022	Finalise after inclining
Life Saving arrangement	14/03/2022	
Fire Control Plan	07/03/2022	
Fire & Deck Wash System	14/03/2022	In review internally
CALMAC SAR Plan	CMAL	
CALMAC Muster Lists (Mode 1-4)	CMAL	
Accommodation Layouts	In review with CMAL	
801&802-LNGPac Operating & Maintenance Manual LNGPac-H149-D9	[Redacted] to confirm	[Redacted] updating
Emergency Low level lighting		Will submit after escape route plan approved
Escape Route Plan	28/02/2022	
Layout Drawing - Bridge Wheelhouse console		Requires update with new touch

Top Risks

Risk No	Risk Category	Risk Owner	Risk Description	Action Planned	Controls Confidence Levels	Current Impact	Current Likelihood	Current Risk Score	SCORE AT LAST REVIEW	Change explanation
77	PROJECT RISK	[Redacted]	There is a risk that if all OORs are not agreed as closed with CMAL that acceptance of the vessel will be difficult to achieve.	Following review with customer 09/02 agreed actions to mitigate below 2. OOR149 - cost impact to be provided 4. OOR521 - Engineering to close action regarding maintenance access 6. OOR478 - Engineering to confirm design requirements met 8. OOR286 / OOR354- confidence check to be completed 9. LNG mast - supply paint cert and inspection hatch to be fitted 11. Engine room accessibility / Galvanised Pipe / Port wheelhouse window - all to be progressed		51	5	255		NEW risk 3. OOR338 - now agreed closed 5. OOR413 - now agreed closed 7. OOR181 - closed 10. Nitrogen line routing agreed
76	PROJECT RISK		There is a risk that the number of legacy cables that need to be re-routed impacts the programme	1. Put contract in place with BGEN to size task 2. Identify resource requirements emerging 3. Identify any additional material requirements		50	5	250		NEW risk Mitigating actions have been enacted and output has been to review programme
7	PROJECT RISK	[Redacted]	There is a risk that the work to complete the close out of OORs is underestimated / not identified within the plan activities .	1. Maintain regular reviews 2. Ensure agreed OORs are scoped within the programme and workpackaged 3. Ensure future OORs are captured and actioned 4. Compliance involved in closing out / ensuring work is in plan 5. Identification of defect / change to action what is needed to plan for closure	Reasonable	50	5	250	200	[Red] have now resolved a significant number of OORs and this will continue through model development. An updated OOR status is in hand. Monthly meetings in place to review unresolved OORs
4	PROJECT RISK	[Redacted]	There is a risk that the programme is impacted due to a lack of buy -in from work force to deliver the plan. This includes the fitness of our workforce to deliver the challenge ahead (mature workforce)	1. Employee engagement sessions planned for January 2022, planned for week 3 2. Provide visibility of the plan - rollout week 2 (for next 6 weeks) 3. Finalise allocation of supervisors to areas for start back in January - rollout week 02 4. Performance management in place in January 2022		50	5	250	250	Effectiveness of re-organisation to be measured
2	PROJECT RISK	[Redacted]	There is a risk that we are unable to complete Critical compartments in line with the plan due to emergence of 'unscoped changes'.	1. Extend the change process to [Redac]Any changes recommended by [Redacted] be signed off by Engineering Director and included a clear justification for change with impact analysis. 2. Create a rule that no change will be accepted for 801 unless it Safety critical, results in an early life failure of its customer paid change. 3. High impact change for 801 must be signed off by CEO 4. Start meetings to review change by zone / system (include Engineering / QC / OOR in first instance)		50	5	250	250	Mod Sheets: 400 sheets available - 60 % of this change understood and analysed - remaining 40% impact not understood. Lack of visibility of extent of this change. 'Pipes: Receive Pipe changes via CSV file which including significant change from [Redac] and potential rip out of systems in place.

Top Risks

Risk No	Risk Category	Risk Owner	Risk Description	Action Planned	Controls Confidence Levels	Current Impact	Current Likelihood	Current Risk Score	SCORE AT LAST REVIEW	Change explanation
78	PROJECT RISK		There is a risk that late approval of drawings results in additional reworking of progressed areas. This is a risk associated with change process / configuration management	<ol style="list-style-type: none"> 1. Close all outstanding approvals with MCA / LR 2. Ensure all new AFC drawings are issued to Operations 3. Ensure all new drawing revisions are included in plan 4. install 3D model station on ship to provide access to supervisors 5. close out NC on review of revision levels of drawings with Supervision 		50	4	200		NEW risk
41	PROJECT RISK	[Redacted]	LNG bunkering requires modifications as risk assessment has not yet been undertaken	<ol style="list-style-type: none"> 1. Further risk assessment prior to actual bunkering of LNG will be undertaken 		50	4	200	[Red]	PROMOTED following Risk Reviews
12	PROJECT RISK	[Redacted]	Workpackaging arrangements not robust enough to control properly the work sequence and capturing performance	<ol style="list-style-type: none"> 1. Introduce a process for workpackaging - in place 2. Improve the organisation to deliver the new process 3. 4week diary plan in place to support Operations 4. %age progress to be reported on actual progress (not manhour spend) - Planning to review with customer on a regular basis 		50	4	200	100	Workpackaging in manufacturing is working well. Installation workpackages are being issued. The monitoring and control of workpacks to be assessed. Likelihood increased to 4 until programme review is completed. How OORs impact on programme / systems completion towards commissioning to be recognised in planning
9	PROJECT RISK	[Redacted]	There is a risk that level 4 commissioning activities extend beyond level 2 time envelope	<ol style="list-style-type: none"> 1. Level 4 programme to be agreed with Planning - WIP 2. QC / LR support over 7 days to be confirmed (subject to special attendance fee). MCA only available within normal hours 3. OEM attendance to be confirmed 		50	4	200	150	Likelihood promoted to 4 until programme review is completed and actions within risk no 8 completed
6	Engineering	[Redacted]	There is a risk that there are items in the model which are required but do not have a production output drawing from VN, [Redacted] or FMFG. This would lead to late emerging change, late hotwork.	<ol style="list-style-type: none"> 1. Drawings to be moved to sharepoint 2. Model to be available on the ship 3. Put change manager in place 4. Chloe Greenway move to Manufacturing Engineering (Buildability). Chloe to review the Model and the ships for Critical areas. 5. Where drawing are not available, develop a fast track process (quick sketch) to allow the work to be completed. 6. Work with Operation Manager (Chris Gillies) and Technical Liaison to manage and fast track missing drawings which are key to complete hotwork. 7. How are supplier detailed workpackages packaged (e.g. TTS, alfa laval boiler) 8. Defined list available for platforms / walkways / ladders to be detailed by FMFG 		50	3	150	200	Example: zone 1002 / 0303 Walkways identified within the model with not information available for Operation to fit. This was identified by operations review the Model and identified missing walkways. Note (BMcl) - it was always intended for there to be no production output for these walkways - this was agreed with Alex Stobo in 2020. I don't think that this risk is as high as stated here. The ship survey reviewed the ship against the model and should have identified missing items on the ship. Risk likelihood reduced to 3

Variations to Contract

Description	Additional Cost 801	Additional Cost 802	Programme Allowance 801	Programme Allowance 802	Weight Allowance 801	Weight Allowance 802	Status
Removal of Oily Water Separator	-	-	-	-	-1.88 T	-1.88 T	Closed
Removal of 1 air compressor, 1 air receiver, and 1 air dryer	-	-	-	-	-1.1 T	-1.1 T	Closed
Removal of 2 LO purifiers for Diesel Gen	-	-	-	-	-1 T	-1 T	Closed
Removal of Vapour Return Line	-	-	-	-	-	-	Closed
Supply of Window Washing Equipment	[Redacted]	[Redacted]	-	-	-	-	Closed
Removal of Condition Monitoring System	-	-	-	-	-	-	Closed
Change of Supplier from Kongsberg to Wartsila	-	-	-	-	-	-	Closed
Removal of 24V AC system	-	-	-	-	-	-	Closed
Raindrop Ventilation Change	-	-	-	-	-	-	Closed
Panama Eye Removal	-	-	-	-	-	-	Closed
802 Thermostatic Valves	[Redacted]	[Redacted]	-	-	-	-	Closed
Provision of Workshop Tools	-	-	-	-	-	-	[Redacted]
Accommodation Fresh Water Fire Main	-	-	-	-	-	-	FM to send VTC
Sliding Weathertight Doors Deck 7	-	-	-	-	-	-	FM to send VTC
Additional Shore Supply Connection 802	-	-	-	-	-	-	FM to send VTC

[Redacted]



CMAL Comments to the Monthly Report

CMAL Comments: