

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

Programme Director: [Redacted]

Review Period: December 2021

<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 802: 3 April 2023 - 3 July 2023	
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	

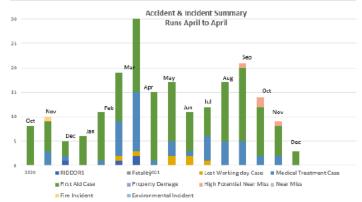
Health & Safety

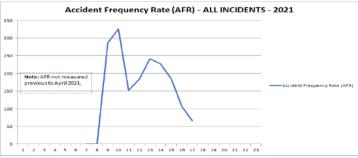


Highlights

- Further Candidate for Lifting Manager position, identified, final interview 14th January 2022.
- Mark Burrows has joined as Head of HSE reporting to David Henderson _ Compliance Director. Roadmap for change will be produced by end of Q1
- Covid-19 cases starting to increase towards end of period, we continue to monitor the potential impact of Omicron and subsequent government guideline changes.
- Further reduction in incidents with only three First Aid cases is encouraging, albeit half of December there were fewer activities. This is reflected in continued reduction in AFR. 2021 Incident analysis confirms following trends: -
- Source of Injury: Manual Handling x 2, Impact x 1
- Trade: Painter, Welder, Ancil.
- Body part affected: Finger, Hand and Ear
- Work location: 801, 802

Title	This Month	Cumulative
RIDDORS	0	0
Fatality Case (Fatal)	0	0
Lost Working Day Case (LWC)	0	5
Medical Treatment Case (MTC)	o	24
First Aid Case (FAC)	3	87
Property Damage (PD)	0	0
High Potential Near Miss	0	4
Near Miss (NM)	0	0
Fire Incident (FI)	0	0
Environmental Incident	0	0
Total Number of Recordable Injuries	0	1
Total Number of Days Lost	0	48





Traffic Light Report

-	Overall Status		Future	Comments			
	Sep 21	Oct 21	Nov 21	Dec 21	Trend	Comments	
Overall Status	Α	Α	Α	Α	\leftrightarrow		
Safety	G	G	G	Ø	\leftrightarrow	 Permanent Head of HSE agreed and commences week 1, 2022. Lifting Manager recruitment re- commenced. Priority H&S actions continue to receive attention. 	
Cost	G	G	Ø	Ø	\leftrightarrow	Project Cost forecast is being continuously monitored and we are still within the window 110M – 114M.	
Schedule	A	Α	A	A	\leftrightarrow	802 Project Master Schedule is under review.	
Quality	G	G	A	A	\leftrightarrow	 QMS tool, QPulse, implementation started. Live version now installed. Still on track for roll out through out the business, starting with the Leadership Team Formal Defect rate following Calling notice of inspection is remaining at a low level now that legacy defects are being reviewed and closed weekly. Increased incident rate of Work in Progress quality concerns, number of site visits with client jointly reviewing and currently being investigated. This moves Quality to amber until process improvement realized 	
Customer Relationship	G	G	G	G	\leftrightarrow	 Rules of Engagement, renamed "Terms of Reference" have been agreed and sent to CMAL for signature. A thorough review of the OOR's has been undertaken and the output of this is being processed. The Buyer's Representative letter contradicts the Terms of Reference and question raised [redacted] 	
Technical	A	А	A	A	\leftrightarrow	P&IDs to be issued to CMAL at current rev for approval Stair width risk – application from for concession has been written and is with Jim Anderson for review. Stability results will require concession from CMAL. Crank case breather location to be determined and agreed – work ongoing. Open OORs could impact on design	
Supply Chain	G	G	G	G	\leftrightarrow		
Operations	А	А	А	А	↑	Additional reducted employees now on-site further additions being progressed for post Christmas - making a positive impact on progress of hotwork packages. Focus is on completing 801 hotwork packages	
Commissioning	O	G	O	O	\leftrightarrow	Commissioning planned to start in January	
Risk Management	R	Α	А	A	↑	 The Risk Register has been refreshed and an internal review completed, a review is to be scheduled with CMAL w/c Monday 17 January. 	

SOFT Report

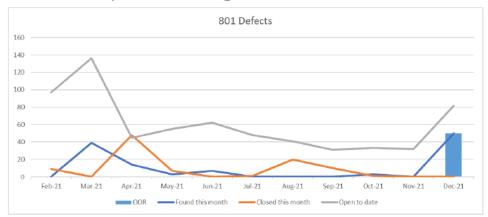


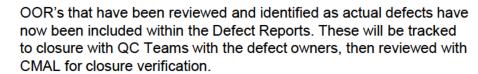
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Successes	Opportunities
 Further integration of [Redacted] MRP in the business and will be fully implemented for 802. Q-Pulse QMS tool, programming and installation complete 21st Dec. Live version now installed. Plan to Roll out throughout January. Sea Water system installation being readied for January testing 	 Build strategy review for 802 to build as blocks for wheelhouse units erection at ship Completion of 802 clam shell doors on slip before launch Continuous employee improvement up-skill by coding of several apprentices throughout the business. Supervision engagement and capability requirements defined to allow for effective performance management. – commence mid Jan Progress reporting metrics rolling out to ship is in progress and being monitored Risk Management process has just been re-established and brought up to date and a refreshed risk register is available. Reviews with CMAL to be re-established in January 2022 Quality-Increased focus through CMAL and FM QC engagement with on-board vessel patrols. CMAL are unhappy with access to valves and pumps and the installation of the platforms in zone 2. We are working with CMAL to identify opportunities to modify the design. Quality-Increased focus on OOR review and closure with a introduction of a tracking board within QC to allocate tasks and track closure with support from CMAL.
Failures	Threats
Stability – load cases when carrying 16 HGVs does not pass stability requirements with full passenger complement. Will require concession from CMAL who have been supportive of this in meetings held to discuss.	 COVID 19 impact to programme– remains a threat to the programme. Level of change is being processed and managed on a daily basis. 801 valve & instrumentation delivery forecast threat to completion of some pipe systems. Stair widths from car deck to passenger areas are too narrow and require a concession from the MCA – Form filled out and with Jim Anderson for review Crank case breather location is a threat. This is a key system for commissioning and must be resolved to the customer's satisfaction. Location is critical as this creates a zone 1 hazard. – Work ongoing to resolve. Close out of OOR's & Technical Queries in a timely manner Pipe install rate to completion will require additional resource and quick resolution of issues.



Quality

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

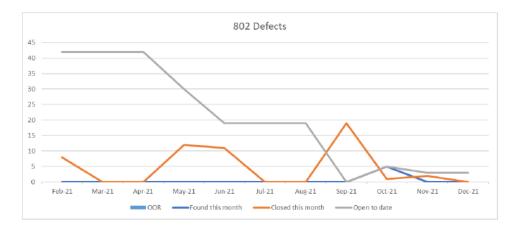




801 – Majority of Surveys performed in December was Pipework on Fuel Oil, Sea Water and Air Pipe systems. .

Main issues detected:-

Lack of paint on contact points. Currently being rectified U-Bolt holes sizes, too large. Flodacto currently rectifying



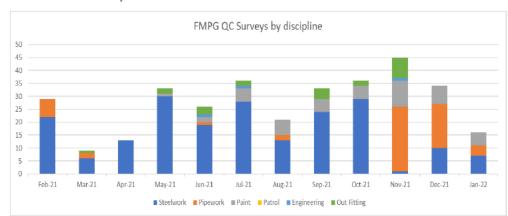
802 - Units A 6/5, Units 49/50 /51 part surveys conducted.

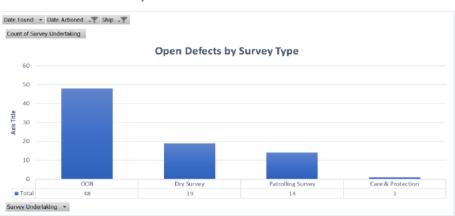
External Bilge Keel Port and Stbd Conducted

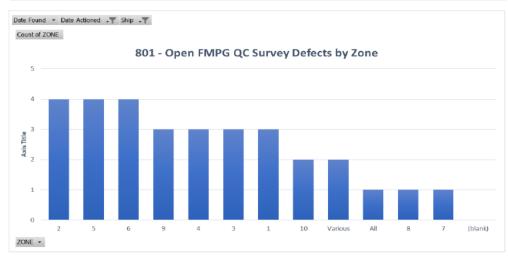
Quality

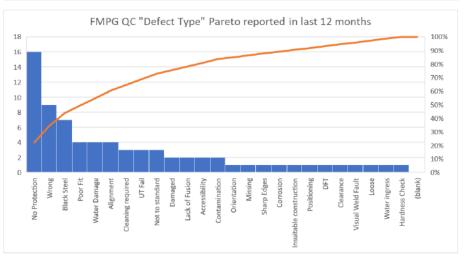


5. Quality Dashboard – 801 & 802 Formal Internal QC Surveys



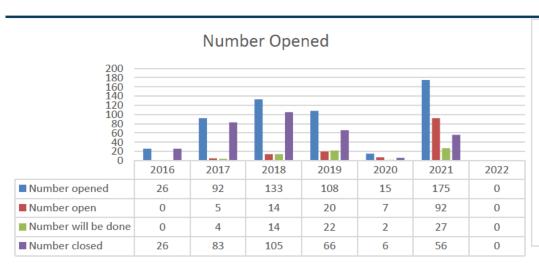


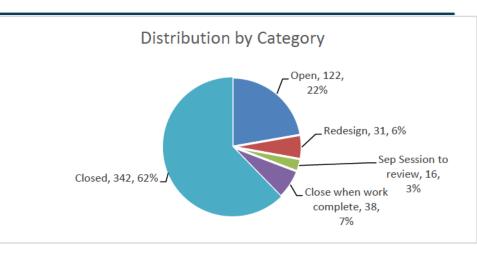


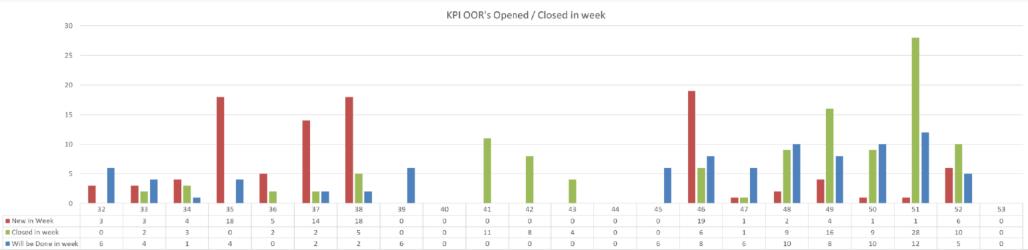


OOR Reviews



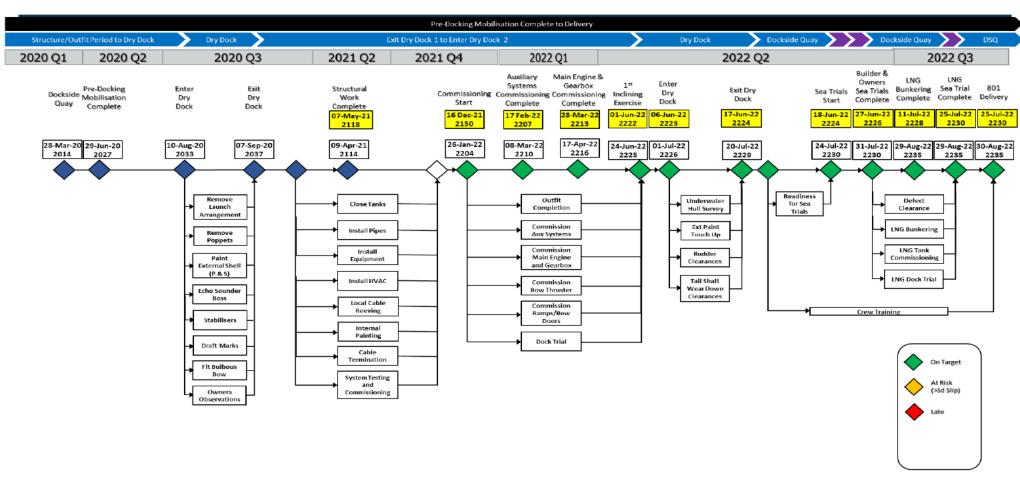






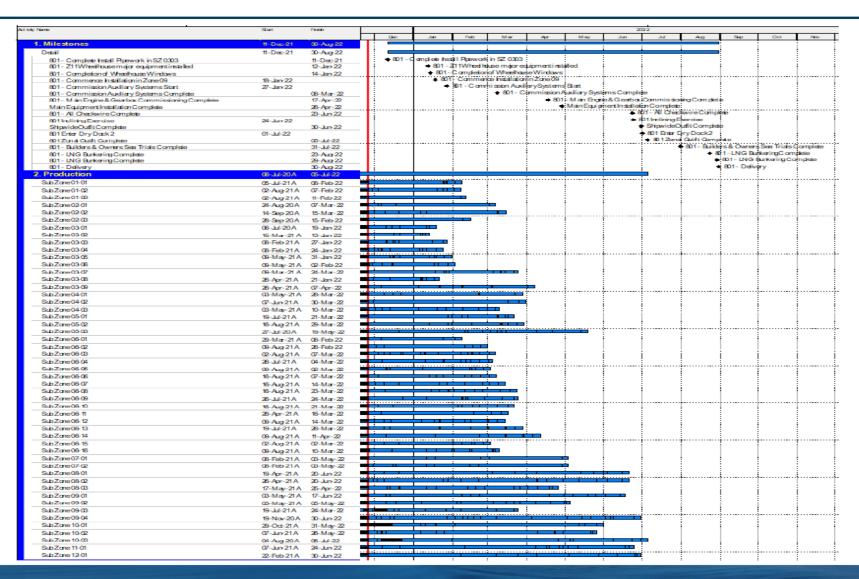
801 Milestones





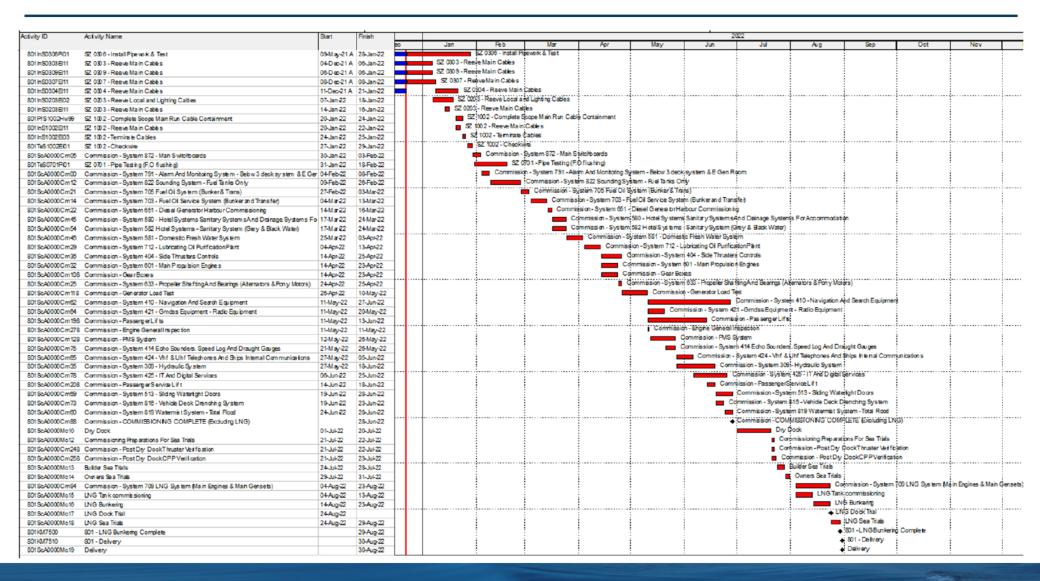
Updated 31st May 2021

801 L2 Schedule – Sub Zone Level



801 Critical Path





801 Trades



	St	tatus		
	Quality	Schedule	Comments	
Steelwork	G	A	Hull Outfit (HO) steelwork & Pipe spool manufacture being progressed through Manufacturing & Subcontract facilities HO steelwork plan in place 「Reducted」ramp up understood for January	
Pipe Installation	G	A	 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 being agreed for January 	
Electrical Installation	O	A	More workfaces opened to B-GEN Cable pulling underway Switchboard clean planned & PO placed Acceleration plan agreed with B-GEN ECR / Main switchboard changes underway [Redacted]	
Upper Decks Insulation & Outfit	G	G	Pinning & insulation progressing Cable ladder installation progressing Bonding of windows Deck 6 windows under review with subcontractors	
HVAC installation	G	A	Deck 5 installation continues, await additional tapping straps	
Hydraulic Pipe manufacture & install	G	G	[Redacted progressing installation Additional materials now on order with [Redacted]	
Structural Insulation	G	А	Access to areas being agreed as hotwork packages complete	
LNG Installation	G	A	Installation underway Cryodiffusion back on site Tank tie in philosophy developed with [Redacted to construct RAMS. System flushing / cleaning procedures and SOW in development	

801 Pipe Installation

Overall

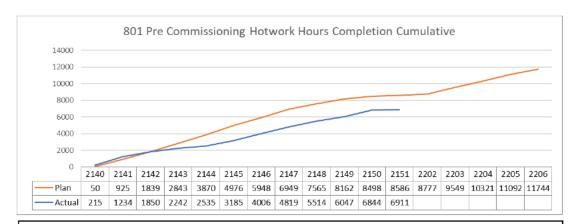
- Pipe Installation in Zone 01, 02, 03, 04, 05, 07, 08 & 10 is underway using FMPG & [Redacted]
- [Redacted] installation of SFI 309 system continues primarily in Zone 3 / 4
- Cryodiffusion back on site to complete installation of 801, 802 following completion on 801
- Overall pipe installation curve shown for 801 for remaining spools S-Curves amended to align with programme / mod sheets
- Pipe penetrations have slowed progress for pipe installation teams
- Producted / FMPG have focus on FO / LO / SW system completions
- Additional valves now on order
- Instrumentation lists being confirmed
- Additional resource requirements to be engaged in January
- For 2022 reports to separate spools from site runs
- Seawater system testing planned for January

801 Hotwork



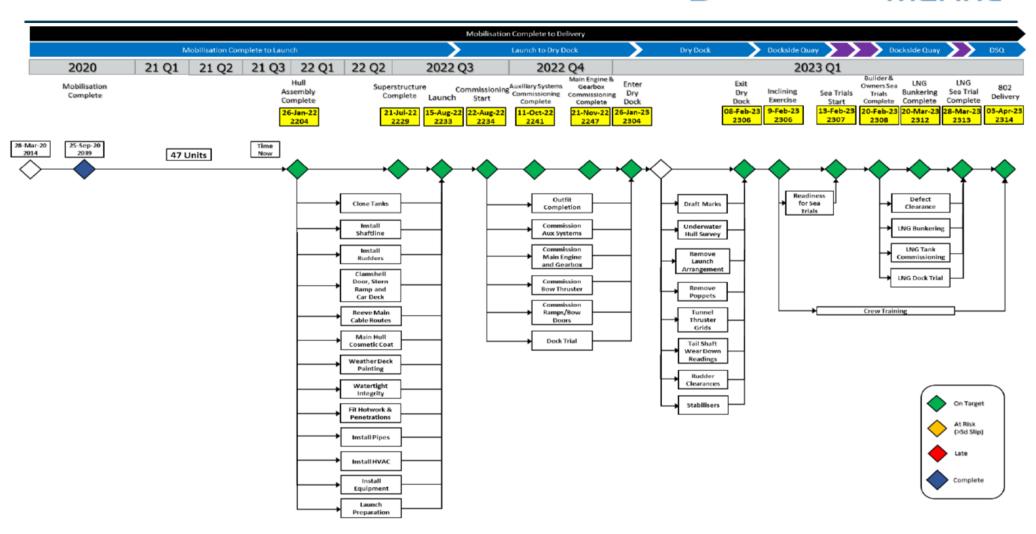
Overall

- Managing resource to key activities only ahead of Christmas break
 - CN330
 - electrical foundations
 - zone 11 void
 - aluminium integration around lifts
 - Zone 8/9
 - bow doors
- Additional subcontract manufacture continues to be used to accelerate availability of major and electrical seats.



%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%	78%	100%	100%		100%	
2	100%	100%	100%	97%	100%		63%	100%	
3	94%	100%	83%	74%	80%	100%	20%	80%	
4	100%	89%	100%	53%	67%	100%	58%	100%	
5	100%	37%	76%	25%	0%	50%	21%	0%	
6	75%	63%	22%	15%	7%	35%	5%	49%	
7	71%	19%	0%	62%	48%	0%	0%	76%	
8	25%	0%	100%	0%	86%	81%		10%	
9	0%	45%	100%	0%	93%	80%		0%	
10	18%	17%	100%	20%	68%	57%	50%	0%	
11	91%	0%		0%	21%	100%		100%	

802 Milestones



Updated 30th Sept 2021

802 Trades



Status		atus		
	Quality	Schedule	Comments	
Steelwork	0	A	 HO steelwork being progressed through Manufacturing & Subcontract facilities. Units 85/86 & 49/50/51 being progressed in Shed. Units A/75 & A/95 being progressed in Shed. Fenders being progressed. Ducktail - Lloyds have provisionally approved the proposal for the Chine Bar. Change request has been submitted. Resource has been constraint. 	
Pipe Installation	O	A	• (Redacte)have commenced marking out pens to be cut in zone 2.	
Electrical Installation	G	O	No current issues impacting cost, schedule or quality.	
Upper Decks Insulation & Outfit	G	O	No current issues impacting cost, schedule or quality.	
HVAC installation	0	0	No current issues impacting cost, schedule or quality	
Hydraulic Pipe manufacture & install	G	G	No current issues impacting cost, schedule or quality	
Structural Insulation	G	G	Initial pinning has commenced	
LNG Installation	G	G	All materials now onsite. Installation to commence after hot work completion, plan being reviewed.	

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	Plan/OPS/JG	
19	Outfit	AC	07/12/2021	·	Is there an option to fit ealier in the outfit sequence	Review outfit build strategy	Plan/OPS/JG	
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	Care & Protection	SM	07/12/2021	Care and protection	Reviewing process ship wide	Review current process, implement necessary improvements	Manufacturing Engineers	
22	Outfit	AC	07/12/2021	20+ doors incorrect information on drawings (CR330)	Correct Drawings to be issued before fitment	Track CR	cG	
23	Outfit	AC	21/12/2021	Passenger handrails 6/7 decks incorrect	Review and update drawings before issueing	Review drawings	ENG/Paul Ross	
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	ENG	
25	Strucural	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	JG	
26	Strucural	AC	21/12/2021		Started to fit in shed, fit on ship before launch as much as possible	Ops to review build strategy	Ops	
27	Maintenance	CR	21/12/2021	Preservation on equiment not carried out	Review process	Review process	Manufacturing Engineers	
28	Outfit	AC	21/12/2021	Issues with door fitment	fitted earlier in build	Review process	Manufacturing Engineers	

Weight



- No change to weight in December.
- [Redacted] will be reviewing the impact of any changes to pipes and validating the weight of miscellaneous steel in the next month.



Engineering – Basic Design Status – Lloyds status at 10/1/22

Under review at Lloy ▼	Date Sent to LR	note
Technical & Domestic Fresh Water System	[Redacted]	Waiting on response from A
		Waterworth
Tank & Capacity Plan	08/12/2021	
Nitrogen System	15/12/2021	held up by LNG comments
Fore End Structure IWO Bow Thrusters	18/11/21 (To local), a	and 15/12/21
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	comments returned
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]
be submitted to Lloyds (in wo	Expect to complet 💌	note
Damage control plan	End Feb	After stability work concludes
Cargo Securing Manual	End Jan	waiting info from CMAL



Engineering – Basic Design Status – MCA status at 10/1/22

Under review at MCA	Date sent to MCA	Note ▼
Structural Fire Protection Plan	04/10/2021	Delayed due to GA update
Fixed Fire Extinguishing Syst. ECR & Pipes, Cables Transformer Room	04/11/2021	expected in Jan
Fixed Fire Extinguishing Syst. Server Equip. Rm - Deck 7	04/11/2021	expected in Jan
Fixed Fire Extinguishing Syst. Emergency Diesel Generator room	04/11/2021	expected in Jan
Layout Drawing - Bridge Wheelhouse console	04/11/2021	
Escape Route Plan	[Redacted]	Delayed due to GA update
Fire Door, Damper & Patrol Point Monitoring Dk.7 to Dk. 1 Gen. Arrgt	26/10/2021	expected in Jan
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	[Redacted 300]	to be updated after GA issue
Fire Control Plan	[Redacted	delayed by escape route plan
Fire & Deck Wash System	requires approval of a change	
CALMAC SAR Plan	CMAL	
CALMAC Muster Lists (Mode 1-4)	CMAL	
Accommodation Layouts	Delayed due to GA update	
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	delayed by escape route plan

Commissioning

- Test Packs are being created and sent to CMAL/LR when they are ready for review and approval where appropriate.
 - 65 (58%) have been drafted and submitted for review
- Of the 48 remaining test agendas:
 - 11 will be written by the naval architects prior to sea trials target date for draft is 1st June 22
 - 16 are OEM supported trials and we will use their commissioning documents as a basis
 - 21 still required to be drafted by the T&C team.
- A senior electrical commissioning engineer will join the team in January.
- A detailed commissioning plan has been created by the commissioning team and the next step is to create this in Primavera as a level 4 plan for commissioning that can be linked to production activities.
- Commissioning activities that will be delivered by OEMs need to be highlighted in the plan.
- OEM commissioning scopes of work and pre-requisites need to be confirmed.

801 System Commissioning



		Co	mmissi	onir	ng	g (Data Date 23-Dec-21)
ctivity ID	Activity Name	Start	Finish	er 2	2021	21 January/2022 February/2022 March 2022 April 2022 May 2022 June 2022 July 2022 August 2022 September 202 0 27 03 10 17 24 31 07 14 21 28 07 14 21 28 04 11 18 25 02 09 16 22 30 05 12 20 27 04 11 18 25 01 08 15 22 29 06 12 19
801ScA0000Cm02	Cammission - System 806 - Shore Supply	26-Jan-22*	28-Jan-22	PI	7	Gommission-System 866 - Shore Supply
80 1ScA0000Mc00	Comme noe Commissioning	26-Jan-22	20081722			Commanos Commissioning
80 1ScA0000Cm04	Commission - System 900 - Electrical Pover Supply MSB, ESB, (Generic Heading)	28-Jan-22			ш	◆ Commission - System 860 - Electrical Power Supply (MSB, ESB, (Generic Heading)
01SoA0000Cm05	Commission - System 872 - Main Switchboards	30-Jan-22	03F eb-22			Commission - System 872 - Main Switchboards
801SoA0000Cm268	Cammission - System 872 - Emergency Switch boards	30-Jan-22	05-Feb-22			Commission -System 872 - Emergéncy Switchboards
00 1SoA0000Mo01	Main Switchboards Energised Milestone		03F eb-22		-	M an Switchboards Energised Miles tone
01ScA0000Cm00	Commission - System 791 - Alarm And Manitoring System - Below 3 decks yetem & E. Gen Roo	04-Feb-22	08-Feb-22			Commission - System 791 - Alarm And Monitoring System - Below 3 deck system & E Gen Room
801SaA0000Cm158	Commission - General Service Pumps	04-Fab-22	05-F ab-22			☐ Commission -General Sewice Pumps
001SoA0000Cm15	Commission - System 721 - See Water Cooling System	05-Fab-22	13-F ab-22			Commission - System 721 - Sea Water Cooling System
801ScA0000Cm03	Commission - System 882 - Transformes	06-Feb-22	13-F eb-22			Commission - System 882 - Tensformes
01SoA0000Cm12	Commission - System 822 Sounding System - Fuel Tanks Only	09-Fab-22	26-F db-22		T	Commission - System 822 Sounding System - Fue I Tanis Only
01ScA0000Cm28	Commission - System 711 - Lubricating Oil Transfer System	15-Feb-22	19-F eb-22			Commission - System 71 2 - Lubricating Oil Transfer System
01ScA0000Cm07	Commission - System 743 Exhaust Gas & Crank case Breather System	17-Feb-22	18-F ab-22			☐ Commission - System 743 Exhaust Gas & Crark case Breather System
015cA0000Cm83	Cammi s ion - System 708 - Nitragen System	23-Feb-22	28-Feb-22			Commission- System 708 - Nitrogen System
801ScA0000Cm85	Cammi seion - System 725 Gly coll Heating System	23-Feb-22	25-Feb-22			□ Commission - System 725 Glycol Heating System
001ScA0000Cm34	Commission - System 713 Lubricating Oil System brGearbox	24-Feb-22	28-F eb-22			Commission-System 713 Lubricating QIISystemfor Geatook
001ScA0000Cm37	Cammission - System 713 Lubricating Oil System for Thrusters	24-Feb-22	28 Feb-22			Commission-System 713 Lubricating CRISystem for Thrusters
01ScA0000Cm09	Commission - System 666 Quick Clasing Valve System	24-Feb-22	26 F eb-22		1	Commission - System 886 Quick Closing Valve System
001SoA0000Cm10	Commission - System 821 Tark Air Vent System - Fuel Tarks	24-Feb-22	26 Feb-22			Commission - System 821 TarkAirVert System - Ruel Tarks
015aA0000Cm16	Commission - System 722 - Fresh Water Little Cooling System	28-Feb-22	08-Mar-22			Commission - System 30 = Intricult vert system - Nee lanks ——Commission - System 722 - Rech Water Litht Cooling System Commission - System 706 Fuel Oil System Burker & Tends
001ScA0000Cm21	Commission - System 705 Fuel Oil System (Bunker & Trans)	27 Feb-22	03-Mar-22			Commission - System (UD Fuel Oil System Bunker & Trans)
01SaA0000Cm238	Commission - System XXX Cryagenic System	01-Mar-22	15-Mar-22			Commission - System XXX Cityogenic System
01SaA0000Cm13	Commission - System 701 - F.O. System For Main Engines, Aux & Emergency Gen.	04-Mar-22	10-Mar-22			Commission - System 701 - F.O. System For Main Engines, Aux & Emergency Gan.
01SoA0000Cm14	Commission - System 703 - Ruel Oil Service System (Bunker and Transfer)	04-Mar-22	13-Mar-22			Can mission - System 703 - Ruel Cit Sewice System (Burker and Transfer)
01ScA0000Cm20	Commission - System 883 - Battery Charger And Ups - Machinery & Automation	05-Mar-22	11-Mar-22			Commission - System 883 - Battley Charger And Ups - Mach hey & Automation Commission - System 731 - Compressed Air Start & Instrumentation System
01SoA0000Cm17	Commission - System 731 - Compressed Air Start & Instrume ntation System	08-Mar-22	13-Mar-22			
01ScA0000Cm288	Commission - System 791 Alarm And Monitoring System - Zone 4 to 7	12-Mar-22	11-A ps22			Commission - System 791 Alams And Monitoring System - Zone 4 to 7
0 15cA0000Cm22	Committee ion - System 651 - Diesel Generator Harbaur Commitsioning	14-Mar-22	16-Mar-22			■ Commission - Bystem 651 - Diesel Genreator Harbbur Commissioning Commission - System 707 - 140 Fuel Store or Trans & Associate d'Ove to me
0 15cA0000Cm82	Commission - System 707 - UNG FuelStop ge Tanks & Associated Systems	14-Mar-22	24-Mar-22	_		Commission - System (Dr - URC) ruetStoog grams 6 Asociated Systems Commission - System 904 Soupers 6 prints System
00 1ScA0000Cm57	Commission - System 804 Scup pers & Drains System Commission - System 564 - Colid And Cool Rooms	14-Mar-22 17-Mar-22	19-Mar-22 20-Mar-22			Commission - system aut souppen a Desire System Commission - System Sid - Cod And Cod Roome
			20-Mar-22 24-Mar-22	_		Cpri masion - system 500 - Hotel System's Sanitary Systems And Deinage System's For Agon mode to n
00 1ScA00 00 Cm45	Commission - System 500 - Hotel Systems Sanitary Systems And Drain age Systems For Accom			_		Commass bin - System cqu - notercysemy seminary by stem And ble in age system? And commod to n Commass bin - System 502 Hotel Systems - Sanitary System (Gry & Black Water)
001ScA0000Cm54	Commission - System 562 Hotel Systems - Sanitary System (Grey & Black Water) Commission - System 651 - Diesel Generator Auxiliary	17-Mar-22 17-Mar-22	24-Mar-22 26-Mar-22	_		Commission System (561 - Diesel Generativa vigativa vigat
01SoA0000Cm65	Commission - System 704 Machinery & Save-All Drains	21-Mar-22	22-Mar-22			Commission - System 704 Madriney & Save All Dairs
001SaA0000Cm18	Commission - System 732 / 73 3 - Service Air	22-Mar-22	31-Mar-22			Commission - System 722 / 733 - SendekAir
801SaA0000Cm46	Commission - System 681 - Domestic Fresh Water System	25-Mar-22	03-Apr22			Commission - System 691 - Domestic Fresh Water System
801ScA0000Cm168	Commission - Galley Equipment	27-Mar-22	03-Ap+22			Commission - Galiley Equipment
801ScA0000Cm23	Commission - System 666 - Emergency Generator	01-Ap+22	02-Ap+22			Commission - System 005- Emergency Generator
80 15 oA00 00 Cm50	Commission - System 803 - Sludge, Waste And Oily Bilge System (Electical only)	01-Ap+22	10-Ap+22			Commission - System 803 - Sludge, Waste And Oily Bige System Electical only)
01ScA0000Cm24	Rist Run Auxiliary G enerators Finish Millestone	30,000	02-Ap+22			→ First Run Auxiliary Ceneratos Finish Mitestone
015cA0000Mc02	Rist Run Generators (Harbour, Emergen cy & Diesel) Complete Milestone		02-Ap+22			◆ First Run Generators (Harbout Emergency & Diesel) Complete Milestone
015cA0000Cm26	Commission - System 637 - Main Reduction Gears	03-Apr22	07-Ap+22			Commission - System 637 - Main Reduction Gears
01ScA0000Cm30	Commission - System 795 - Remote Control OffMain Engines And Propulsion	03-Ap+22	12-Ap+22			Com mission - System 795 - Remote Control Of Maint Engines And Propulsion
01ScA0000Cm47	Commission - System 641 - Auxiliary Boile's	04-Ap+22	05-Ap+22		1	☐ Commission-System 041 - Aux liary Boiles
01ScA0000Cm27	Commission - System 702 - Fuel Oil Puri floation Plant	04-Ap+22	06-Ap+22		T	☐ Commission - System 702 - Fuel Oil Pulification Plant
01ScA0000Cm29	Commission - System 712 - Lubricating Oil Pulification Plant	04-Ap+22	13-Ap+22			Commission - System 712 - Lubricating Oil Purification Plant
01ScA0000Cm188	Commission - Galley Food Lifs	04-Ap+22	06-Ap+22			Commission Galley Food Life
01SoA0000Cm178	Commission - Laundry Equipment	09-Apr22	13-Apr22		1	Commission - Laundry Equipment
01ScA0000Cm67	Cammi saion - System 430 - Ancholing, Mooring And Deak Equipment	10-Apr22	29-Ap+22			Commission - System 430 - Anchoring Mooring And Dedt Equipment
01ScA0000Cm58	Cammi z ion - System 803.2 Elige System (Oily)	11-Apr-22	20-Apr22			Commission - System 803:2Bilge System (Oily)
01SaA0000Cm38	Cammi saion - System 404 - Side Thrusters Controls	14-Ap+22	25-Ap+22			Commission - System #04 - Side Thrusters €ontrols
01SoA0000Cm44	Cammi as ion - System 570 - Heating, Ventiation And Air Conditioning Systems	14-Apr22	27-Jun-22			Çanı mission - System 570 - Healting, Ventlijation And AirC
01SaA0000Cm32	Commission - System 601 - Main Propulsion Engines	14-Ap#22	23-Apr 22		1	Commission - System 601 - Main Propulsion Engines
01ScA0000Cm108	Commission - Gear Boxes	14-Ap #22	23-Apr22			Cohnrission - Gear Books
01ScA0000Cm72	Commission - System 815 - Novec1 230 Fixed Fire Extinguishing System	21-Ap#22	30-Ap+22			Commission - System 815 - Novec 1230 Fixed Fire Extinguishing System
01ScA0000Mc03	Main Erg ine Commissioning Complete Milestone		23-Ap+22		1	◆ Malin Engine Commissianing Complete Milastone
01ScA0000Cm25	Commission - System 633 - Propeller ShattingAnd Bearings (Alternators & Pony Mobis)	24-Ap+22	25-Ap+22		1	Commission - System 633 - Propeller Shatting And Bearings (Alternators & Pony Motos)
01ScA0000Cm53	Commission - System 577 Heating System	24-Ap+22	23-May-22		1	Commission - System 577 Heating System
01ScA0000Cm33	Main Erg ine and Prop Shaft Commissioning Finish MI estone		25-Ap+22		1	Main Engine and Prog Shaft Commissioning Finish Milestone
01ScA0000Mc04	CPP Set UP (Gear Boxes) Complete Milestone		25-Ap+22			◆ CPP SetUP (Gear Boyes) Complete Milestone
01ScA0000Cm118	Commission - Generator Load Test	28-Ap+22	10-May-22		1	Commission Generator Load Test
01ScA0000Cm51	Cammission - System 811 - Fire Detection System	09-May-22	19-May-22		1	Commission - System 811 - Fire Detection System
01ScA0000Mc05	Generator Load Test Complete Milestone		10-May-22		1	◆ Generator Load Test Complete M lie stone

801 System Commissioning (cont)



		Commissioning (Data Date 23-Dec-21)										
tvity ID	Activity Name	Start	Finish	er 202	21	January 2022	February 2	2022	March 2022	April 2022	May 2022 June 2 022 July 2022 August 202	2 September 20
				3 20	27 0	3 10 17 24	31 07 14	4 21 28	07 14 21 28	04 11 18 2	25 02 09 18 23 30 08 13 20 27 04 11 18 25 01 08 15	
01ScA0000Cm41	Com mission - System 279 - Impressed Current Cathodic Protection System	11-May-22	13-May-22								■ Commission - System 279 - Impressed Current Cathodic Protection 5	ystem
01ScA0000Cm62	Com mission - System 410 - Navigation And Search Equipment	11-May-22	27-Jun-22								Com mission - System 410 - Nav gation	
01ScA0000Cm64	Com mission - System 421 - Gmdss Equipment-Radio Equipment	11-May-22	20-May-22	_							Commission - System 421 - Gmdss Equipment Radio Equipm	ent
01ScA0000Cm68	Com mission - System 503 - Fast Rescue Bolats (Frbis) & Davits	11-May-22	20-May-22	_							Commission - System 503 - Fast Rescue Boats (F b's) & Davits	:
01ScA0000Cm59	Com mission - System 803.1 Bilge System (Clean)	11-May-22	20-May-22	_							Commission - System 803 1 Bilge System (Clean)	
01ScA0000Cm198	Com mission - Passenger Lifts	11-May-22	13-Jun-22								Commission - Passenger Lits :	
01ScA0000Cm128	Commission - PMSSystem	12-May-22	26-May-22								Commission - PMS System	
01ScA0000Cm56	Commission - System 813 File and Wash Dedt System	19-May-22	24-May-22								Commission - System \$13 File and Wash Deax System	
01ScA0000Cm70	Com mission - System 515 - SidelightsAnd Windows	21-May-22	23-May-22				:				■ Commission - System 515 - SidelightsAnd Windows	:
01ScA0000Cm49	Commission - System 802 - Sludge And Waste Oil System	21-May-22	30-May-22								Commission - System 802 - Sludge And Waste Oil Syste	
01ScA0000Cm75	Com mission - System 414 Echo Sounders Speed Log And Dasught Gauges	21-May-22	28-May-2.2								 Commission - System #14 Echo So unders Speed Log And 	Draught Gauges
01ScA0000Cm71	Com mission - System 538 - Gangway Davits	24-May-22	28-May-2 2				· · · · · · · · · · · · · · · · · · ·				Commission - System 536 - Gangway Davits	
01ScA0000Cm52	Commission - System 571 Chill ed Water System	24-May-22	02-Jun-22								Commission - System 571 Chilled Water System	
01ScA0000Mc08	PMS Set Up Complete Milestone		28-May-22								◆ PMS Set Up Complete Milestone	
01ScA0000Cm65	Commission - System 424 - Vhf & UhfTelephones And Ships Internal Communications	27-May-22	05-Jun-22								Commission - System 424 - Vhf & Uhf Telephones A	nd Ships Internal C
01ScA0000Cm35	Commission - System 309 - Hydraulic System	27-May-22	18-Jun-22	_							Commission - System 309 - Hydraulic Syste	m
01ScA0000Cm74	Commission - System 403 - Steering Gear, Emergency Steering	27-May-22	02-Jun-22								Commission - System 403 - Steering Gear, Emergency	Steering
01ScA0000Cm138	Com mission - System 404 - Side Thrusters Motors	27-May-22	03-Jun-22	_							Commission - System 404 - Side Thrus ters Motos	
01ScA0000Cm68	Commission - System 427 - Light And Signal Equipment	29-May-22	04-Jun-22								Commission - System 427 - Light And Signal Equipm	ient :
01ScA0000Cm48	Commission - System 801 - Trim & Heel Ballast Water System	31-May-22	18-Jun-22								Commission - System 801 - Trim & Heel Ba	llast Water System
01ScA0000Cm42	Commission - System 405 - Stabilisers & Anti-Heeling Tanks	03-Jun-22	05-Jun-22								☐ Commission - System 405 - Stabilisers & Anti-Heelin	g Tanks
01ScA0000Mc07	Boy Thuster Commissioning Complete Milestone		03-Jun-22					!			◆ Bow Thruster Commissioning Complete Milestone	:
01ScA0000Cm78	Com mission - System 425 - IT And Digits ISe rvices	08-Jun-22	25-Jun-22								Commission - System 425 - IT And Dig	italServices
01ScA0000Cm79	Com mission - System 428 - Entertainment System	08-Jun-22	10-Jun-22	_							Commission - System 426 - Entertainment Syste	
01ScA0000Cm77	Com mission - System 417 - Loose Equipment	07-Jun-22	11-Jun-22	_							Commission - System 417 - Loose Equipment	
01ScA0000Cm298	Commission - System 791 Alam And Monitoring System - Zone 8 to 11	08-Jun-22	23-Jun-22	_							Commission - System 791 Alarm And M	onitoring System - 2
01ScA0000Cm208	Com mission - Passenger Service Lift	14-Jun-22	18-Jun-22								Commission - Passenger Service Lift	
01ScA0000Mc08	Ramps / Bow Doors Commissioning Complete Milestone		18-Jun-22	_							◆ Ramps / Bow Doors Commissioning Comp	ete Milestone
01ScA0000Cm69	Commission - System 513 - Sliding Watertight Doors	19-Jun-22	28-Jun-22	_							Commission - System 513 - Sliding	Watertight Doors
01ScA0000Cm73	Commission - System 816 - Vehicle Deck Drenching System	19-Jun-22	23-Jun-22	_							Commission - System 818 - Vehicle Dec	
01ScA0000Cm60	Commission - System 819 Watermist System - Total Flood	24-Jun-22	28-Jun-22	_			•				Commission - System 819 Waternis	
01ScA0000Cm88	Commission - COMMISSIONING COMPLETE (Excluding LNG)	2400122	28-Jun-22								Commission - COM MI SSIONING C	
01ScA0000Cm61	System Completion Commissioning Finish Milestone		28-Jun-22	_							◆ System Completion Commissioning	Finish Milestone
01ScA0000Mc09	Dook Trial	29-Jun-22	25/01/22	_							♦ Dook Trial	
01ScA0000Cm218	Commission - System XXX Gas Detection	29-Jun-22	03Jul22	_			•				Commission - System XXX Gasi) etadina
1ScA0000Mc10	Dry Dook	01-Jul-22	20Jul22	_							Dry Dbok	
1ScA0000Mc11	MES Tria la	21-Jul-22	21-Jul-22								MESTrials	
1ScA0000Mc12	Commissioning Precerations For Sea Trials	21Jul-22	22Jul22	_							Conjuisioning Pre	: namina For Sea T
1ScA0000Cm228	Commission-MESTrials	21-Jul-22	24Jul22								☐ Commission - ME	Trials
15cA0000Cm248	Commission - Post Dry Dook Thruster Verification	21-Jul-22	22Jul22				:				Commission-Post	
01ScA0000Cm248	Cam mission - Post Dry Dook Tinnse'r Ventication Cam mission - Post Dry Dook CPP Verification	21-Jul-22	23Jul-22								Commission - Post	
01ScA0000Cm256	Builder Sea Trials	24-Jul-22	28-Jul-22								■ Builder Sea Tri	
01ScA0000Mc13	Owners Sea Trials	29-Jul-22	31Jul-22								■ Ownes Sea in	
01ScA00001Mc14	UNG Tank Commissioning Trial Start Milestone	29-Jul-22 01-Aug-22	31/01/22	_								res : ommesionin g Tris I
			05-Au g-22	- 1							Main Eng	
1ScA0000Mc29	Main Eng ine Inspection	01-Aug-22		_								Commission - Sv
1ScA0000Cm84	Com mission - System 709 LNG System (Main Engines & Main Gersets)	04-Aug-22	23-Aug22									Tank:commission i
1ScA0000Mc15	LNG Tank commissioning	04-Aug-22	13-Aug22	_								LNG Bunkering
1ScA0000Mc16	LNG Bunkering	14-Aug-22	23-Aug-22	_								ILNO, Bunkening ♦ LNG Tank Com
1ScA0000Cm87	LNG Tank Commissioning Trial Finish Milestone	24-Aug-22		_								♦ LNG Tank Com ♦ LNG Dock Trial
1ScA0000Mc17	LNG Dock Trial	24-Aug-22		_								
1ScA0000Mc18	LNG Sea Trials	24-Aug-22	29-Aug-22	- 1								LNG Sea Ta ♦ Delivey

Top Risks

Risk No		Risk Owner	Risk Description	Action Planned	Current Risk Score	SCORE AT LAST REVIEV	*
2	Operations	[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 [Pedacta Any changes recommended by [Pedato 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. Change for 801 must be signed off by Tumaround Director with full impact assessment provided. 4. Start meetings to review change by zone / system (include Engineering / QC / OOR in first instance)	250	250	
3	Operations	[Redacted r	There is a risk that there are criticial items still to be procured that are on a lead time longer than the programme has scope for.	1. Develop a fast track process for Procurement of 'Urgent tems'. 2. Categor se priority tems and supplier, commence engagement with suppliers and fastTrack process (ahead of identification of what's missing. Discuss with Cath, what's possible) 3. Complete reviews of OEM scope with suppliers 4. Review list of missing items in stores to buy items (Redacted)	250	250	\Rightarrow
4	Operations	F[Redacted y	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	250	250	
7	Project	[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 6. OOR strategy for latest 50 to be agreed / implemented (safety / operability / TLS impacts) 7. Customer engagement (ongoing)	250	200	1
76	Technical		There is a risk that the number of legacy cables that need to be re-routed impacts the programme	Put contract in place with BGEN to size task Identify resource requirements emerging Identify any additional material requirements	250		
5	Supply Chain	[Redacted	There is a risk that equipment in stores cannot be located in a timely manner to support work packages	1. Work packages and BOM now identify material requirements. 2. Finalised BOM to be put in place 3. Physical survey of ship to identify equipment on board / installed 4. SQEP warehpuse resource to be put in place 4. Stock take to be completed to identify what is available 5. MRP run to identify missing items to be ordered 6. Additional SQEP headcount approved	200	200	⇒



Top Risks

Risk No	Risk Category	Risk Owner	Risk Description	Action Planned	Current Risk	SCORE AT LAST REVIEV	₹
5	Supply Chain	[Redacted	There is a risk that equipment in stores cannot be located in a timely manner to support work packages	1. Work packages and BOM now identify material requirements. 2. Finalised BOM to be put in place 3. Physical survey of ship to identify equipment on board / installed 4. SQEP warehpuse resource to be put in place 4. Stock take to be completed to identify what is available 5. MRP run to identify missing items to be ordered 6. Additional SQEP headcount approved	200	200	\Rightarrow
6	Operations	[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, [Roducor FMPG. This would lead to late emerging change, late hotwork.	1. Drawings to be moved to sharepoint 2. Model to be available on the ship 3. Put change manager in place 4. [redacted move to Manufacturing Engineering (Buildability). Ireducted to review the Model and the ships for Critical areas. 5. Where drawing are not available, develop a fast track process (sketch - back of fag packet!) to allow the work to be completed. 6. Work with Operation Manager [redacted 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)	200	200	⇒
1	Commissioning	[Redacted]	There is a risk that we do not have appropriate level of commissioning staff to support the programme with suitable qualifications and experience. Resulting in delays in completion of commissioning activities.	1. Recruitment of commissioning manager. 2. Use of [Flackacted] resource as required to support 3. Use other on site subcontractors to support	150	250	1
8	Commissioning	[Redacted]	There is a risk that the commissioning programme is delayed / extended due to impact of further changes	Change to be tightly controlled to identify schedule impact Impact assessments to be completed and held in a register	150	150	\Rightarrow
9	Commissioning	[Redacted]	There is a risk that level 4 commissioning activities extend beyond level 2 time envelope	Level 4 programme to be agreed with Planning - WIP QC / LR support over 7 days to be confirmed (subject to special attendance fee). MCA only available within normal hours OEM attendance to be confirmed	150	150	\Rightarrow
50	Project	[Redacted]	COVID-19 - there is a risk that the onging effect may impact the yard or its suppliers	Put absence monitoring in place to ensure resource is applied to correct activities Resource manager to be in post (offer issued)	150	[Red	1

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	-	-	-	-	-1.1 T	-1.1 T	Closed
receiver, and 1 air dryer							
Removal of 2 LO purifiers for	-	-	-	-	-1T	-1T	Closed
Diesel Gen							
Removal of Vapour Return Line	-	-	-	-	-	-	Closed
Supply of Window Washing	[Redacted]	[Redacted]	_	_	_	_	Closed
Equipment					_		Closed
Removal of Condition Monitoring							Closed
System		_	_	-	_	_	Closed
Change of Supplier from							Closed
Kongsberg to Wartsila	_	-	-	-	-	_	Closed
Removal of 24V AC system	-	-	-	-	-	-	Closed
Raindrop Ventilation Change	-	-	-	-	-	-	Closed
Panama Eye Removal	-		-	-	-	-	Closed
802 Thermostatic Valves		[Redacted]	-	-	-	-	Closed
Provision of Workshop Tools	[Redacted]		-	-	-	-	[Redacted]
Accommodation Fresh Water Fire							511111550
Main							FM to send VTC
Sliding Weathertight Doors Deck 7							FM to send VTC
Additional Shore Supply							FM to send VTC
Connection 802							TIVI LO SETIO VIC

CMAL Comments to the Monthly Report



CMAL Comments: