



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

Janet T. Mills  
GOVERNOR

Bruce A. Van Note  
COMMISSIONER

October 17, 2024  
Subject: Construction of a Hybrid Ferry  
State WIN: 024605.10  
Location: Lincolnville  
**Amendment No. 1**

Dear Sir/Ms.:

In the contract bid book, **REMOVE** pages 204 through 206 Documentation/Master Deliverable List (MDL) and **REPLACE** with the attached Documentation/Master Deliverable List (MDL) totaling three pages.

Consider these changes and information prior to submitting your bid on **December 18, 2024**.

Sincerely,

A handwritten signature in blue ink that reads "George Macdougall".

George M. A. Macdougall P.E.  
Contracts & Specifications Engineer

#### 4.2.6 Documentation / Master Deliverables List (MDL)

ABB's Master Deliverables List (MDL) defines the project deliverables to the shipyard. This list varies for each project but generally consists of the following only as far as it pertains to ABB's scope of supply unless otherwise stated.

Drawing list will be reviewed and agreed between ABB and the shipyard. All submittals to USCG are to be done by the shipyard.

Drawing Title	Per	Typical for USCG Approval	Comments
<b>Electrical System Scope</b>			
Overall Single Line Diagram	Shipset	True	Electrical single line diagram showing principal topology of ABB equipment scope and interfaces to major non-ABB scope equipment. This drawing may evolve as needed until design freeze.
Electrical System Philosophy	Shipset	True	Document to describe the various operational modes of the vessel's propulsion and power system.
Fault Current Calculations and Protective Device Coordination Analysis - ODCG SWBD	Shipset	True	Short circuit calculation and selectivity are limited to primary components of the main switchboard and low voltage AC systems. Voltage drop calculation starting heavy consumers studies, selectivity studies and coordination studies for the Main Switchboard in ABB Scope of Supply
Fault Current Calculations and Protective Device Coordination Analysis - LV System	Shipset	True	
Selectivity Study - LV System	Shipset	True	
Connection Diagrams	Shipset	False	Showing terminal mounting points and cables for all equipment in ABB's scope of supply
THD in AC Distribution System	Shipset	False	Total Harmonic Distortion
Vital Systems LV DC Power Distribution Load Analysis	Shipset	True	
Parameter Setting list	Shipset	False	
Energy Storage System - Energy Balance Study	Shipset	False	
<b>Regulatory</b>			
Failure Modes and Effects Analysis (FMEA) Input	Shipset	True	As per USCG CFR requirements, ABB to provide necessary supporting documentation for ABB scope of supply equipment for shipyard to develop and seek approval of the project FMEA.
Design Verification Test Procedure (DVTP) Input	Shipset	True	As per USCG CFR requirements, ABB to provide necessary supporting documentation for ABB scope of supply equipment for shipyard to develop and seek approval of the project DVTP.
Periodic Safety Test Procedures (PSTP) Input	Shipset	True	As per USCG CFR requirements, ABB to provide necessary supporting documentation for ABB scope of supply equipment for shipyard to develop and seek approval of the project PSTP.
<b>Equipment Drawings and Manuals</b>			
Main Equipment List	Shipset	False	Summary of ABB scope equipment
Consumer List	Shipset	False	Summary of ABB scope equipment power consumption
Part List	Shipset	False	
Heat Dissipation to Air and Water	Shipset	False	Summary of ABB scope equipment heat dissipation data
Equipment Arrangement Drawings	Equipment, as applicable	False	All key dimensional and mechanical drawings including pertinent interfaces (e.g. piping connections, foundations, system interface requirements, wet/dry weights, center of gravity, electrical connection types / locations, lifting points, heat dissipation, airborne noise estimates, and the required equipment maintenance envelopes).
Equipment Technical Specification	Equipment, as applicable	False	
Equipment Functional Description	Equipment, as applicable	Some (e.g. ESS, Onboard DC Grid™)	
Cables and Grounding Guideline	Onboard DC Grid™ / Onboard Microdrive	False	

Drawing Title	Per	Typical for USCG Approval	Comments
Equipment Control Wiring Diagram	Equipment, as applicable	Typically only for LV Switchboard	Internal control wiring diagram of equipment.
Equipment Interface Power Block Diagram	Equipment, as applicable	True	Power interfaces between equipment.
Equipment Interface Automation and Control Block Diagram	Equipment, as applicable	True	Automation and control interfaces between equipment.
Automation & Controls – General			
System Topology	Shipset	True	
Interface Guide	Shipset	False	
System 800xA Function Description	Shipset	False	
Automation System Block Diagram	Automation System, as applicable	True	e.g. IAS Block Diagram, PEMS™ Block Diagram
Automation & Controls – Integrated Automation System (IAS)			
IO List	Shipset	False	Complete list of I/O points for all automation systems
Operator Workstation & Server (OWS)	Shipset	False	Interface monitor and computer for shipyard-supplied engineering operating station.
HMI Graphic displays	Shipset	False	Human Machine Interface mimic drawings for different ship systems.
History Server	Shipset	False	
Alarm Printer	Shipset	False	
IAS Function Description	Shipset	False	
IAS HAT Test Procedure	Shipset	False	Hardware Acceptance Test
IAS HAT Test Report	Shipset	False	Hardware Acceptance Test
IAS SAT Test Procedure	Shipset	False	Software Acceptance Test
IAS SAT Test Report	Shipset	False	Software Acceptance Test
IAS Change Management Workflow	Shipset	False	
Automation & Controls – Marine Cyber Security			
Marine Cyber Security Function Description	Shipset	False	
Marine Cyber Security System Information	Shipset	False	
Marine Cyber Security Internal Handover Check List	Shipset	False	
Marine Cyber Security External Handover Check List	Shipset	False	
Marine Cyber Security Review Check List	Shipset	False	
Marine Cyber Security Testing Procedures	Shipset	False	
Automation & Controls – Power & Energy Management System (PEMS™)			
Power & Energy Management System Function Description	Shipset	True	
Power & Energy Management System Block Diagram	Shipset	True	
Power & Energy Management System Hardware Acceptance Test (HAT) Procedure	Shipset	False	
Power & Energy Management System Hardware Acceptance Test (HAT) Report	Shipset	False	

Drawing Title	Per	Typical for USCG Approval	Comments
Power & Energy Management System Software Acceptance Test (SAT) Procedure	Shipset	False	
Power & Energy Management System Software Acceptance Test (SAT) Report	Shipset	False	
<b>Automation &amp; Controls – Propulsion Control System (PCS)</b>			
Propulsion Control Function Description	Shipset	True	
Propulsion Control System Block Diagram	Shipset	True	
<b>Automation &amp; Controls – Remote Control System (RCS)</b>			
Remote Control System Function Description	Shipset, as applicable	True	
<b>Automation &amp; Controls – Remote Diagnostic System (RDS)</b>			
ABB Ability™ Marine RDS - Functional Description	Shipset	False	
RDS Block Diagram	Shipset	False	
<b>Factory Acceptance Testing</b>			
Factory Acceptance Test (FAT) Procedure	Equipment or System, as applicable	False	Factory Acceptance Test plan for each piece of ABB scope equipment.
Factory Acceptance Test (FAT) Report	Equipment or System, as applicable	False	Factory Acceptance Test report for each piece of ABB scope equipment.
<b>Commissioning and Site Support</b>			
Pre-Commissioning Check List - signed by yard	Equipment / System	False	Checklist of expected shipyard activities to have been complete before ABB can begin commissioning each piece of ABB scope equipment.
Commissioning Procedures	Equipment / System as applicable	False	ABB's commissioning activities for each ABB scope of supply equipment.
Commissioning Report	Equipment / System as applicable	False	ABB's commissioning test report for each ABB scope of supply equipment.
Spare Parts and Special Tools	Shipset	False	A list of recommended spare parts and/or tools where provided by the equipment supplier.
<b>Vessel Trials</b>			
Dock Acceptance Test (DAT) Procedure	Equipment / System, as applicable	False	
Sea Trial Acceptance Test (SAT) Procedure	Equipment / System, as applicable	False	
Sea Trial Report	Shipset	False	