Annex E

Ship Recycling Plan & EU List Approval

ENGINEERING, PREPARATION, DECOMMISSIONING AND RECYCLE OF FLUMINENSE FPSO

For

the BIJUPIRA AND SALEMA (BJSA) DECOMMISSIONING Project

01	Issue for information	09.06.2023	Nick Akrami Nielsen	Cecilie Nielsen	Pawel Serafinski	N/A
B	Issue for review	07.06.2023	Nick Akrami Nielsen	Cecilie Nielsen	Pawel Serafinski	N/A
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			Page: 1 of 28

VERSION CONTROL

Summary of revisions between this version and previous versions

Rev.	Date	Section	Description
01	09.06.2023		Document issued for information.
B	07.06.2023	All	Document changed to narrative format instead of bullet points in table format. Cover page changed to Contractors. Lightweight changed from 52302 [t] to 53227 [t].
A	05.12.2022	All	Document created and issued for review.

DOCUMENT HOLDS

Summary of document holds

Hold No.:	Description	Page

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References

/1/ BJSA-SHL-100-MA-ASE-0001 FPSO Fluminense – Inventory Hazardous Materials prior to Recycling

/2/ BJSA-MAR-000-PM-PLN-0005 Ship Recycling Facility Plan

/3/ BJSA-MAR-000-PM-PLN-0001 Waste Management Plan

/4/ BJSA-MAR-000-PM-PLN-0003 HSSE Management Plan

/5/ BJSA-MAR-000-MA-PLN-0001 Biofouling Removal and Disposal Plan

/6/ EHS-DEC-A105 – EU List Approval

/7/ Topsides NORM Inspection FPSO Flu (11-10-2018)

/8/ Tank 2C NORM Inspection (08-2019)

/9/ Tank 5C NORM Inspection (01-2020)

/10/ Tank 6C NORM Inspection (03-2019)

/11/ Tank 7C NORM Inspection (05-2019)

/12/ Tank 8C NORM Inspection (12-2019)

Abbreviations

Company	SHELL BRASIL PETRÓLEO LTDA.
Contractor	Modern American Recycling Services Europe A/S
DASR	Document of Authorization to conduct Ship Recycling
DEPA	Danish Environmental Protection Agency
EHS	Environment, Health, and Safety
FPSO	Floating Production Storage and Offloading
HAZMAT	Hazardous Materials
HECSALV	Salvage and Emergency Response Software
HSSE	Health, Safety, Security and Environment
IHM	Inventory of Hazardous Material
LEL	Lower Explosive Limit
NORM	Naturally Occurring Radioactive Material
PPE	Personal Protective Equipment
Project	Engineering, Preparation, Decommissioning and Recycle of Fluminense FPSO
SoW	Scope of Work

Subcontractor	Contractor of Contractor
Fluminense FPSO	Vessel
Vessel	Fluminense FPSO
CoG	Center of Gravity
FPSO	Floating, Production, Storage and Offloading
NORM	Normal Occurring Radioactive Materials
SIMOPS	Simultaneous Operations
SRFP	Ship Recycling Facility Plan
SRP	Ship Recycling Plan
WEEE	Waste from Electrical and Electronic Equipment

1 Introduction

This Ship Recycling Plan (SRP) is developed in accordance with the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (the Convention) ANNEX 2 RESULUTION MEPC.196(62).

The SRP should be read in conjunction with complementary documents giving detailed description of work methods and procedures. The documents are the Waste Management Plan ref. /3/, the Ship Recycling Facility Plan ref. /2/, the HSSE Management Plan ref. /4/ and the Biofouling Removal and Disposal Plan ref. /5/.

This document will be reviewed and eventually updated, when IHM Report Part II and Part III is available to Contractor.

2 Information of Ship and Ship Recycling Facility

Name of ship	FPSO Fluminense
Distinctive number of letters	N/A
Port of registry	Nassau
Flag State	Bahamas
Lightweight	53227 [t]
IMO number	7389405
Name address of shipowner	Shell Brasil Petroleo LTDA, Feliciano Sodre, 215, Parte, A 325, Centro - Niteroi, RJ
IMO-registered owner identification number	N/A
IMO company identification number	10.456.016/0005-90
Telephone number	+ 552139847024
E-mail address	Sebastiao.Cavalari@shell.com

Name of Ship Recycling Facility	Modern American Recycling Services Europe A/S
Distinctive Recycling Company Identity No.	DK39610922
Full address of Ship Recycling Facility	Sandholm 60, 9900 Frederikshavn, Denmark
Primary contact person	Kim Thygesen
Telephone number	+45 53 36 51 79
E-mail address	information@marsrecyclers.com
Name, address and contact information of ownership company	Modern American Recycling Services Inc. Headquarters Rig Decommissioning 499 Powhatten Court Gibson LA 70356 Office: +1 985-631-6212 Mail: information@marsrecyclers.com
Working language(s)	English, Danish

05.12.2022

(Date)

(Signature of Ship Recycling Facility owner/operator)

3 General

3.1 Review of ship-specific information

Table 1 Ship Specific information

Length overall	390 [m]
Breadth moulded	60 [m]
Depth moulded	28.32 [m]
Draft (max operating)	16.028 [m]
Draft (min operating)	7.5028 [m]
Draft (tow condition)	6.5 [m] fwd. / 8.25 [m] midship / 10 [m] aft.
Lightweight	53227 [t]
Previous cargo	Crude oil

3.1.1 Inventory of Hazardous Materials (IHM)

Contractor received IHM Report Part I refer to /1/ and is advised by Company that Part II and Part III are expected to be available during the preparations of FPSO towing which will give Contractor a more accurate overview of volumes and quantities of operationally generated waste and stores. The management of HAZMAT is further described in Section 4.3 Management of Hazardous Materials. Contractor received various NORM Monitoring reports, ref. /7/, /8/, /9/, /10/, /11/ and /12/, that indicate the presence of NORM in tanks and topsides. The presence of NORM could be included in the IHM Part II, to give a clear indication after cleaning and decommissioning of systems offshore, but an extensive NORM Mapping will be conducted after arrival to Contractor's yard, the result of Contractor's mapping will be basis for the cleaning range of the process equipment and other areas where NORM and mercury is present.

An exhaustive list of HAZMAT identified in the IHM Report Part I, and the treatment method and final disposal for each waste fraction is described in the Waste Management Plan ref. /3/.

3.1.2 Ship Specific information

Contractor received required documentation to plan and execute the arrival and disposal of the Vessel, including but not limited to, general arrangements, capacity plans, trim and stability booklet. The documents will be basis for Contractor planning the work to be executed. During the disposal and removal of topside structures, provided documentation will assist in calculating and verifying Vessel stability. Third party software HECSALV will also be used to simulate various ballast conditions when sections are removed to ensure that vessel stability and structural integrity is sufficient during the Disposal phase. The HECSALV Vessel model will either be provided by Company or created by Contractor based on provided documentation.

The Vessel fire plan will also be used as basis for initial fire plan after arrival to Yard, however the emergency exit routes will at some stage during the Project change weekly or daily, so an updated fire control plan and emergency exit plan will be issued and updated accordingly to reflect the actual layout of the Vessel.

Contractor received Vessel P&IDs for the topside process systems, cargo system, and Vessel utility and marine systems. These will be used during the mapping and cleaning process to ensure that all applicable piping is included in the mapping and

cleaning scope and will aid in the quality control process when verifying that vessels, piping, tanks, and other systems are cleaned or drained as planned prior to starting hot-work operations.

3.2 Comparison of ship-specific information with the SRFP and DASR

The recycling of FPSO Fluminense will follow the DASR ref. Attachment 5 – DASR, that Contractor received from the municipality of Frederikshavn 23 August 2018, see ref. /6/. The document states that M.A.R.S. Europe has been accepted to the EU-list of approved ship recycling facilities and lists the conditions for ship recycling at the Contractor's Yard.

All aspects of the Project work are covered by the SRFP ref. /2/ and DASR ref. Attachment 5 – DASR.

4 Framework of SRP

Contractor will recycle the Vessel in a safe and environmentally sound manner, covering the recycling process steps which are described below.

4.1 Pre-arrival elements

A desktop analysis of the provided IHM Report /1/, NORM and Mercury inspections will be carried out. Contractor will prepare mapping plans before arrival, to verify and markup HAZMAT on its physical location after arrival.

All vessels arriving at Contractor's Yard are expected not to arrive in a condition where any areas are Safe-for-Entry. Therefor a Safety Tour is conducted immediately after arrival to ensure that areas will be made safe for Contractor's personnel before any work commences. Contractor has implemented procedures and work instructions for the kind of work that will be executed and followed. All applicable procedures and work instructions can be found in the SRFP ref. /2/ and a detailed description of safety preparations before and after work commences are described in the HSSE Management Plan ref. /4/, that shall be considered a complementary document to the SRP and SRFP.

Import / Export license approval is prepared and obtained in advance before departure from Vessels current location.

Mooring calculations and plans are developed, and mooring equipment is purchased in due time to ensure availability. Towing and berthing procedures will be developed depending on the interface and responsibility areas between Contractor, Company, and Marine Contractor(s).

4.2 Arrival of Vessel

After arrival of the Vessel a safety walk through will be executed by Contractor. During this period all areas on the Vessel will be evaluated and necessary measures will be implemented before any work commences. This includes, but not limited to, barrier management, atmosphere control of tanks and rooms that have been unventilated for longer period, identify any other safety or environmental issues that must be controlled, mitigated, or eliminated. All doors are opened in the

accommodation to provide continues natural ventilation. During the make safe process emergency exit routes will be established and firefighting equipment and emergency spill kits put in place. The safety walk through is done by Contractors HSE Department and competent personnel required for the applicable area or system. The make safe process is clearly described in detail in the HSSE Management Plan ref. /4/.

When the areas of the Vessel are Safe-for-Entry the mapping, identification, quantification, and markup of HAZMAT is commenced. The mapping is based on the IHM Report and Contractor's previous experience with same type of vessels and their previous cargo and operations. The management of HAZMAT is further described in this document in Chapter 4.3 Management of Hazardous Materials, and in Contractors Waste Management Plan ref. /3/. The Waste Management Plan is a complementary document to the SRP where a detailed description of waste management can be found including procedures.

4.3 Management of Hazardous Materials

This Chapter shall be read in conjunction with the complementary document Waste Management Plan ref. /3/, where a detailed description and quantification for the Vessel is created based in the received information in the IHM Report ref. /1/. It is important to emphasize that all HAZMAT will be handled by personnel that are trained and authorized to work with the specific waste fraction in question.

All systems will be depressurized, drained, flushed, purged, and vented to natural conditions depending on actual state. In addition, steam or ultra high-pressure cleaning will be used in selected areas to allow reclassification from non-hot work zone to hot work zone where required. The following cleanliness standard shall be applied:

- Free of liquid hydrocarbons.
- Gas free. All systems depressurized, purged, and vented to natural atmosphere.
- Pipes marked green, meaning all contamination is removed and pipes are ready for hot work.

4.3.1 Mapping of HAZMAT

Before onshore recycling/disposal commences, Contractor's trained and authorized personnel will conduct mapping and verification hazardous materials new and previously identified in IHM Report ref. /1/, and materials that are otherwise not recyclable scrap steel, and develop a plan to remove from Vessel in accordance with internal procedures.

4.3.2 Hazardous waste components

Hazardous waste materials will be separated from other waste fractions and stored in designated area until they can be hauled off-site for final disposal in accordance with Waste Management Plan ref. /3/.

- Hazardous waste is to be considered materials that are not recyclable or hold no commercial value that cannot be disposed of in a typical fashion and must be treated per DEPA regulations before proper disposal.
- Hazardous waste can include NORM, mercury, asbestos, hydrocarbons, batteries, and chemicals.

- As part of Contractors commitment to a circular economy, hydrocarbons will be used as fuel for various applications.

4.4 Safe-for-Entry and Safe-for-Hot-Work procedures

Contractor has established standard procedures for Safe-for-Entry and Safe-for-Hot-Work. The Safe-for-Entry is initially created for areas or for the full Vessel during Make Safe Process, which is done prior to any work commencing. A Make Safe Checklist will be created covering items like ventilation, lights, atmosphere check, housekeeping for loose objects and potentially dropped objects, barrier management, open holes, and other hazards. The findings need to be closed out before work can commence in the area in question.

When entering confined spaces such as diesel tanks and cargo tanks previously containing crude oil or slops, a Confined Space Procedure is followed. This ensures that prior to entry and during work in confined spaces with a potential hazardous atmosphere a continues control of the actual conditions is monitored. All personnel working in confined space have received training and are qualified to do so and will always carry a gas monitor and other applicable PPE that will be decided depending on the area and Scope of Work.

A working procedure for hot work is also implemented on Contractors Yard, ensuring that all hot work operations are only conducted on systems or areas that are released for hot work. Several measurements such as atmosphere check, %LEL, physical marking on piping or tank entrance shall be in place before any permit can be issued.

All work is conducted under Contractors Permit to Work system ensuring that no work commences in areas that are not cleared for safe entry and hot work. The Permit to Work is approved by the EHS Department before it is issued, and they will monitor and have an overview of areas where it is safe to work, and if any concurrent operations (SIMOPS).

For detailed overview, all procedures put in place refer to SRFP ref. /2/ and detailed description of work methods, requirements and procedures is in HSSE Management Plan ref. /4/ that is a specific plan developed for this Vessel.

4.4.1 Safety

1. Make Safe Checklist is to be completed prior to starting any disposal operations.
2. Identify hazardous material type, quantities, and compositions that may be present, and ensure that they remain properly secured until the appropriate personnel can remediate.
3. Install temporary handrails on the vessel, where an un-barricaded area will be created when components are removed.
4. All unsafe areas are to be visually identified using barrier tape.
5. Prior to any hot work operations, a Hot Work Permit must be obtained for the area where the hot work will take place in addition to the permit normally generated for work.
6. Drill (as required), atmosphere check, and gas free all piping that will require cutting above and below the proposed cut points. Due to potential for trapped fluids in the pipe, absorbent pads, tapered dowel plugs, and certified containment drums will be on hand to capture any fluids.

4.5 Dismantling sequence

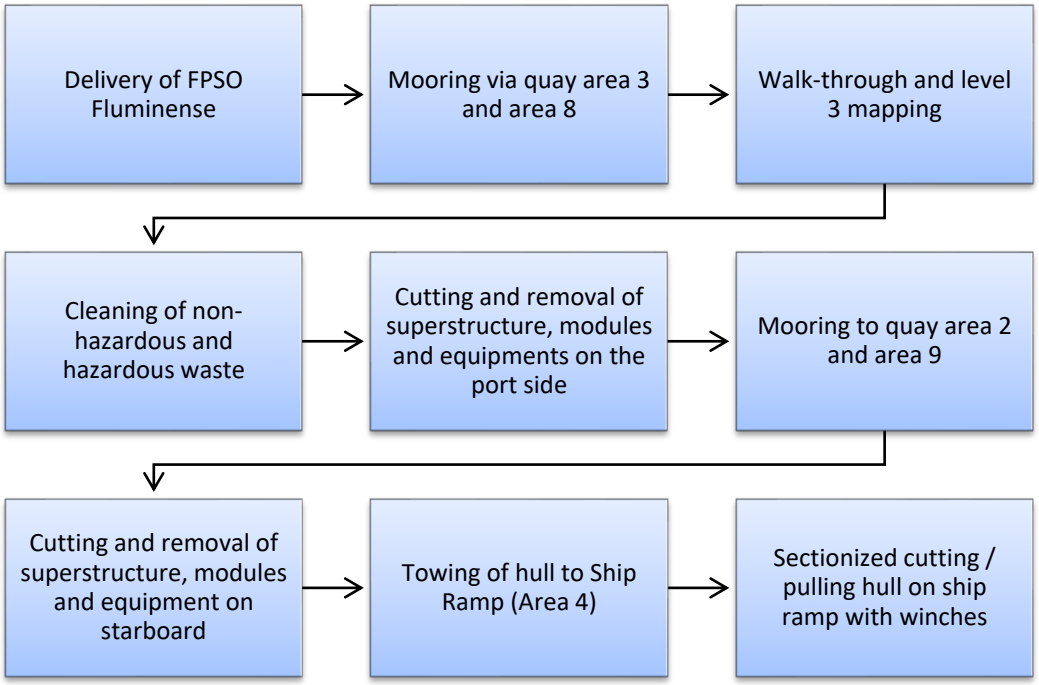


Figure 1 Dismantling sequence

Before disposal activities can start in any area following needs to criteria is required to be fulfilled.

1. All contaminated tanks are emptied and cleaned and verified clean and gas-free.
2. All piping drained and cleaned and marked clean according to Contractor's procedure outlined in the SRFP ref. /2/.
3. All non-hazardous materials are stripped and segregated in accordance with Waste Management Plan ref. /3/, and Contractor's procedures outlined in the SRFP ref. /2/.
4. Removal of all hazardous waste and segregated in accordance with legislation, Waste Management Plan ref. /3/ and Contractor's procedures outlined in the SRFP ref. /2/.
5. Floating barrier in place to contain any spills.

The proposed sequence in Table 2 and Table 3 is subject to detailed engineering and Vessel stability and structural integrity. Contractor can always change the sequence to increase safety and efficiency. Actual sequence of disposal (port / starboard) will be decided during detailed engineering when type of cranes is decided. The option is currently either derrick barge or crawler crane or a combination of both. Engineering will evaluate most feasible option.

When Vessel has been moored to the quay in area 3 / area 8, cutting and removal of superstructures, modules and equipment will start on the port side. Modules to be removed:

Table 2 Sections / modules to be removed portside

Module	Weight [mT]
M10	191.870
M07	815.711
M08	327.105
M09	354.621
MCC	373.947
Helideck	No info (Detailed engineering required)
Section of bridge and LQ	No info (Detailed engineering required)
Turret (in 4 lifts)	No info (Detailed engineering required)

When all modules have been removed from port side, Vessel will be moored to the quay in area 2 / area 9. From here, superstructures, modules, and equipment will be cut and removed from starboard side:

Table 3 Sections / modules to be removed starboard side

Module	Weight [mT]
M01	363.126
M02	277.352
M03	192.345
M04	110.611
M05	578.138
M06	408.835
Sections of bridge and LQ	No info (Detailed engineering required)
Engines, pump, and other mechanical equipment	No info (Detailed engineering required)

4.5.1 Removal of superstructures / modules

Reverse engineering for superstructure / modules is planned to be used. Depending on crane capacity, modules will be removed on its own frames / skids or will be sectionized for elements which can be handled by crane.

- Hazardous materials will be recovered and quarantined at Contractors quay-side treatment station before removal of structures.
- Inert waste, WEEE, and other various material types (other than recyclable steel) will be removed and collected separately before removal of structure as far as feasibly applicable.

It is important to emphasize the fact that the dismantling of the Vessel will be achieved in phases. As such, the clean-up and abatement of certain hazardous and regulated substances in some areas of the Vessel might take place simultaneously with actual cutting of other area, which have already been cleaned and abated. To accomplish this simultaneous task, management and supervisors will meet weekly, or daily, if necessary, to schedule task precedence and overlap and SIMOPS will be planned. Superstructures / modules will be removed from the intact Vessel in a controlled order which will be created based on stability and structural integrity calculations.

4.5.2 Hull deconstruction

When the Vessel is fully cleaned and all superstructure / modules including bride, accommodations, equipment below deck are removed, Vessel will be towed to and pulled up the ship ramp where the hull deconstruction will commence. At this deconstruction stage all HAZMAT and Non-HAZMAT are removed and all areas are safe for hot work, however confined spaces such as cargo tanks, tanks in the engine rooms shall still be evaluated and verified ready for hot work.

Piece large elements up to 200 [mT] are planned to be removed in one lift, by crawler crane, starting from the bow moving aft. The cutting process will be several laps of pulling, mooring, cutting, which will continue until final cut. Sectionized cutting will take place at the end of the ship ramp. Biofouling will be removed from cutlines where needed as described in Biofouling Removal and Disposal Plan ref. /5/.

Reach stackers and wheel loaders will be used to transport the sections to the Process Area. In Process Area, sections will be cut to pieces ready for final recycling.

4.6 Other necessary elements

N/A.

4.7 Attaching a copy of DASR

See Attachment 5 – DASR.

5 Verification of Competent Authority Approval

Denmark has chosen a Tacit Approval.

The Ship Recycling Plan will be submitted for approval of the competent authority prior to start decommissioning.

6 Attachments

6.1 Attachment 1 – Yard layout

M.A.R.S. Europe Facility in Port of Frederikshavn
Areas and quays situation

PIER 4
PIER 5 NORD
RO/RO-LEJE
PIER 5 ØST
NORDHAVN
KAJ
507bv
RALVEJ
507cq
507ch
507dx
Sandholm
Area 7
Sector 4
Access road
BASSIN 1
PIER 6
507bq
507f
NORDRE KAJ
Communication walkway
Water Hydrant 4
Area 6
Area 2
507g
507dq
507bq
FLYDEDOK 2
-8.0
Area 7
Sector 1
Mooring Area
Water Hydrant 3
Area 1
Area 7
Sector 3
ARNE ØRSKOVS VEJ
Breakwater is removed
Shear Area
Area 9
Min. -8.0
Mooring Area
Water Hydrant 2
Area 2
Area 4
Area 7
Sector 2
Roads
Communication walkway
-14.0
Water Hydrant 1
Area 8
Area 3
Area 1

Legend:

- Area 1 - load-in / load-out area - 50 kN/m^2
- Area 2 - load-in / load-out area - 100 kN/m^2
- Area 3 - skidding area - 600 kN/m^2
- Area 4 - ship breaking ramp - 100 kN/m^2
- Area 5 - ship-breaking ramp, central lane - 250 kN/m^2
- Area 6 - cargo zone - 20 kN/m^2
- Area 7 - process area (sectors 1-3) and storage area (sector 4) - 100 kN/m^2
- Area 8 - operation area around the skidding area - 100 kN/m^2
- Area 9 - roll-in / roll-off area - 100 kN/m^2
- Communication walkways
- Roads
- Capping beam - 30 t/m

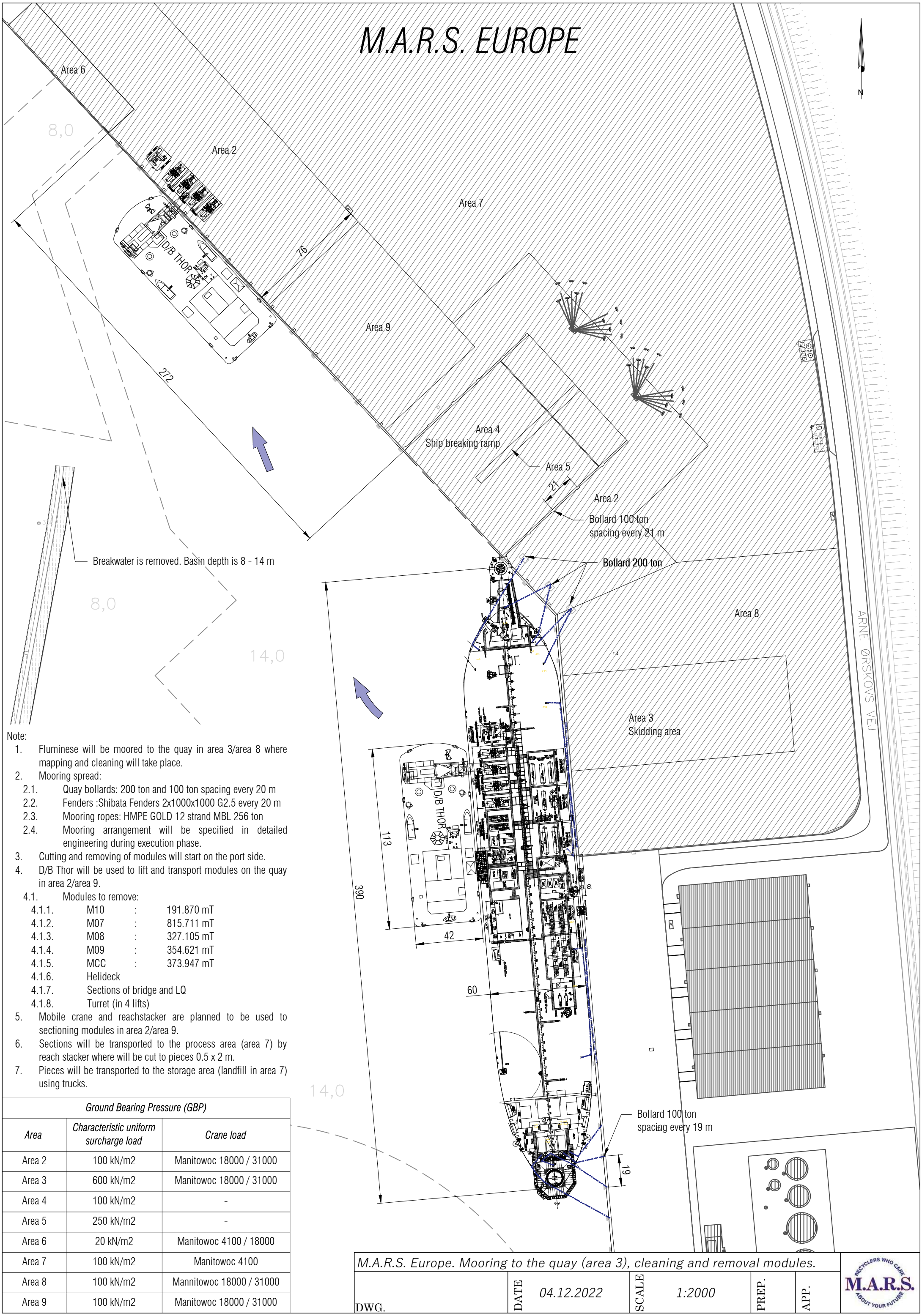
M.A.R.S. Europe A/S
Frederikshavn,
Sandholm 55h
Denmark

RECYCLERS WHO CARE
M.A.R.S.
ABOUT YOUR FUTURE

Drawing scale 1:2000
Date: 23.06.2023

6.2 Attachment 2 – Mooring starboard side and removal of sections

M.A.R.S. EUROPE



Note:

1. Fluminese will be moored to the quay in area 3/area 8 where mapping and cleaning will take place.
2. Mooring spread:
   - 2.1. Quay bollards: 200 ton and 100 ton spacing every 20 m
   - 2.2. Fenders :Shibata Fenders 2x1000x1000 G2.5 every 20 m
   - 2.3. Mooring ropes: HMPE GOLD 12 strand MBL 256 ton
   - 2.4. Mooring arrangement will be specified in detailed engineering during execution phase.
3. Cutting and removing of modules will start on the port side.
4. D/B Thor will be used to lift and transport modules on the quay in area 2/area 9.
   - 4.1. Modules to remove:
     - 4.1.1. M10 : 191.870 mT
     - 4.1.2. M07 : 815.711 mT
     - 4.1.3. M08 : 327.105 mT
     - 4.1.4. M09 : 354.621 mT
     - 4.1.5. MCC : 373.947 mT
     - 4.1.6. Helideck
     - 4.1.7. Sections of bridge and LQ
     - 4.1.8. Turret (in 4 lifts)
5. Mobile crane and reachstacker are planned to be used to sectioning modules in area 2/area 9.
6. Sections will be transported to the process area (area 7) by reach stacker where will be cut to pieces 0.5 x 2 m.
7. Pieces will be transported to the storage area (landfill in area 7) using trucks.

Ground Bearing Pressure (GBP)		
Area	*Characteristic uniform surcharge load*	*Crane load*
Area 2	100 kN/m2	Manitowoc 18000 / 31000
Area 3	600 kN/m2	Manitowoc 18000 / 31000
Area 4	100 kN/m2	-
Area 5	250 kN/m2	-
Area 6	20 kN/m2	Manitowoc 4100 / 18000
Area 7	100 kN/m2	Manitowoc 4100
Area 8	100 kN/m2	Mannitowoc 18000 / 31000
Area 9	100 kN/m2	Manitowoc 18000 / 31000

M.A.R.S. Europe. Mooring to the quay (area 3), cleaning and removal modules.

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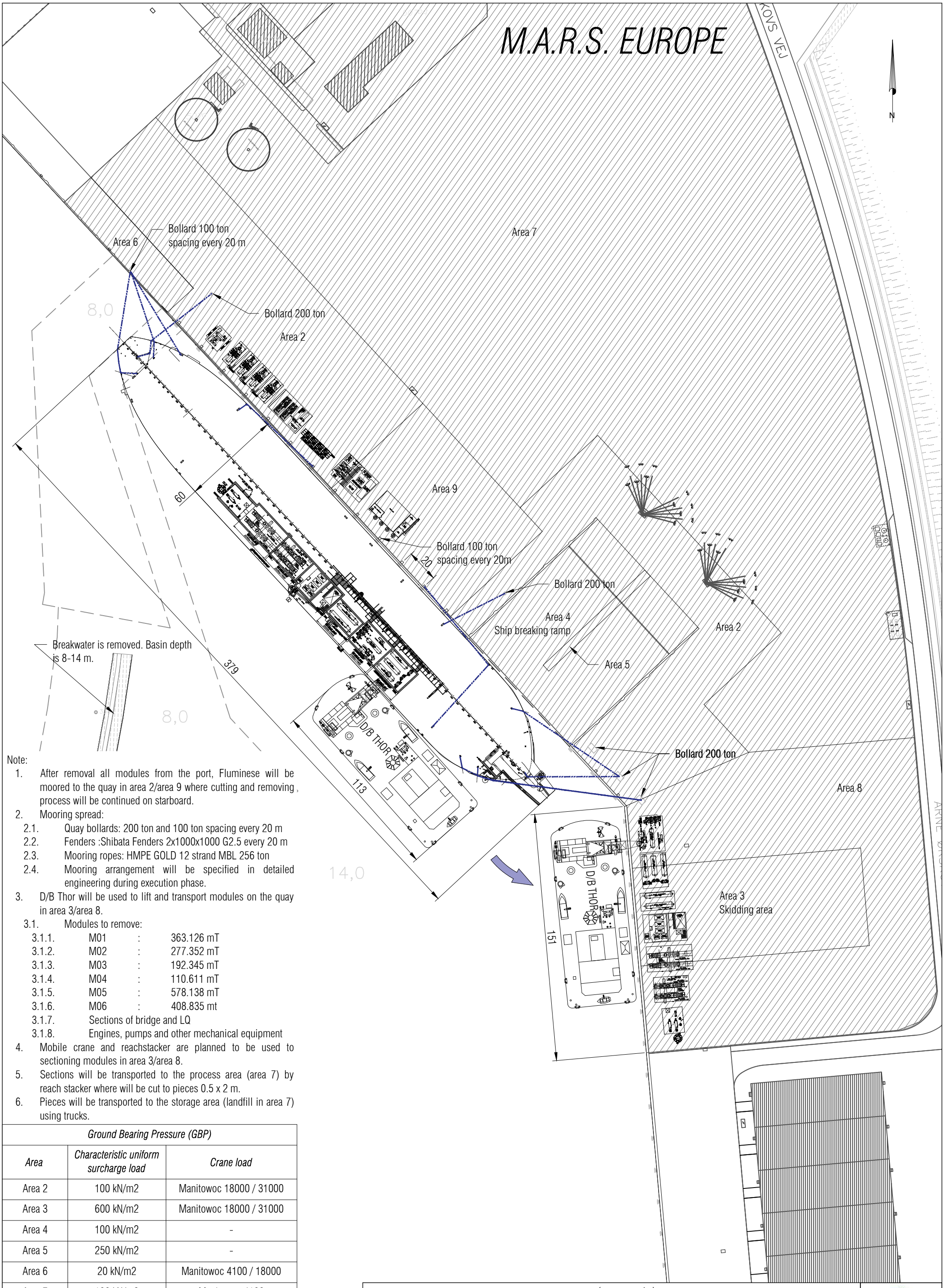
RECYCLERS WHO CARE M.A.R.S. ABOUT YOUR FUTURE

6.3 Attachment 3 – Mooring portside and removal of sections

M.A.R.S. EUROPE



Note:

1. After removal all modules from the port, Fluminese will be moored to the quay in area 2/area 9 where cutting and removing process will be continued on starboard.
2. Mooring spread:
   - 2.1. Quay bollards: 200 ton and 100 ton spacing every 20 m
   - 2.2. Fenders :Shibata Fenders 2x1000x1000 G2.5 every 20 m
   - 2.3. Mooring ropes: HMPE GOLD 12 strand MBL 256 ton
   - 2.4. Mooring arrangement will be specified in detailed engineering during execution phase.
3. D/B Thor will be used to lift and transport modules on the quay in area 3/area 8.
   - 3.1. Modules to remove:
     - 3.1.1. M01 : 363.126 mT
     - 3.1.2. M02 : 277.352 mT
     - 3.1.3. M03 : 192.345 mT
     - 3.1.4. M04 : 110.611 mT
     - 3.1.5. M05 : 578.138 mT
     - 3.1.6. M06 : 408.835 mt
     - 3.1.7. Sections of bridge and LQ
     - 3.1.8. Engines, pumps and other mechanical equipment
4. Mobile crane and reachstacker are planned to be used to sectioning modules in area 3/area 8.
5. Sections will be transported to the process area (area 7) by reach stacker where will be cut to pieces 0.5 x 2 m.
6. Pieces will be transported to the storage area (landfill in area 7) using trucks.

Ground Bearing Pressure (GBP)		
Area	*Characteristic uniform surcharge load*	*Crane load*
Area 2	100 kN/m2	Manitowoc 18000 / 31000
Area 3	600 kN/m2	Manitowoc 18000 / 31000
Area 4	100 kN/m2	-
Area 5	250 kN/m2	-
Area 6	20 kN/m2	Manitowoc 4100 / 18000
Area 7	100 kN/m2	Manitowoc 4100
Area 8	100 kN/m2	Mannitowoc 18000 / 31000
Area 9	100 kN/m2	Manitowoc 18000 / 31000

M.A.R.S. Europe. Mooring to the quay (area 2/9), cleaning and removal modules.

DWG.	DATE	*04.12.2022*	SCALE	*1:2000*	PREP.	APP.

RECYCLERS WHO CARE M.A.R.S. ABOUT YOUR FUTURE

6.4 Attachment 4 – Ramp situation

M.A.R.S. EUROPE

A-A
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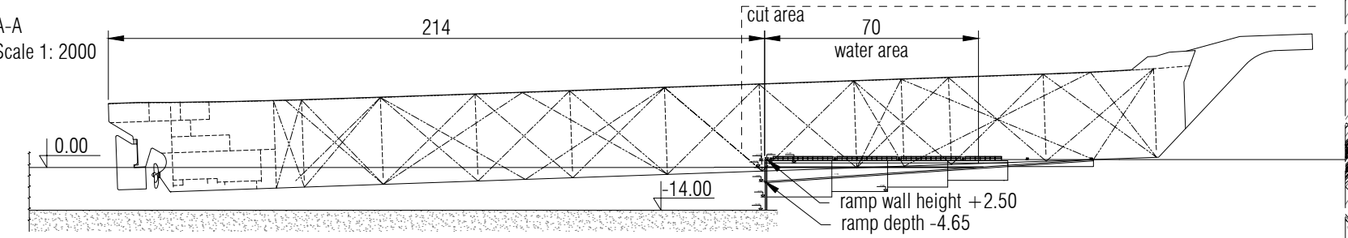
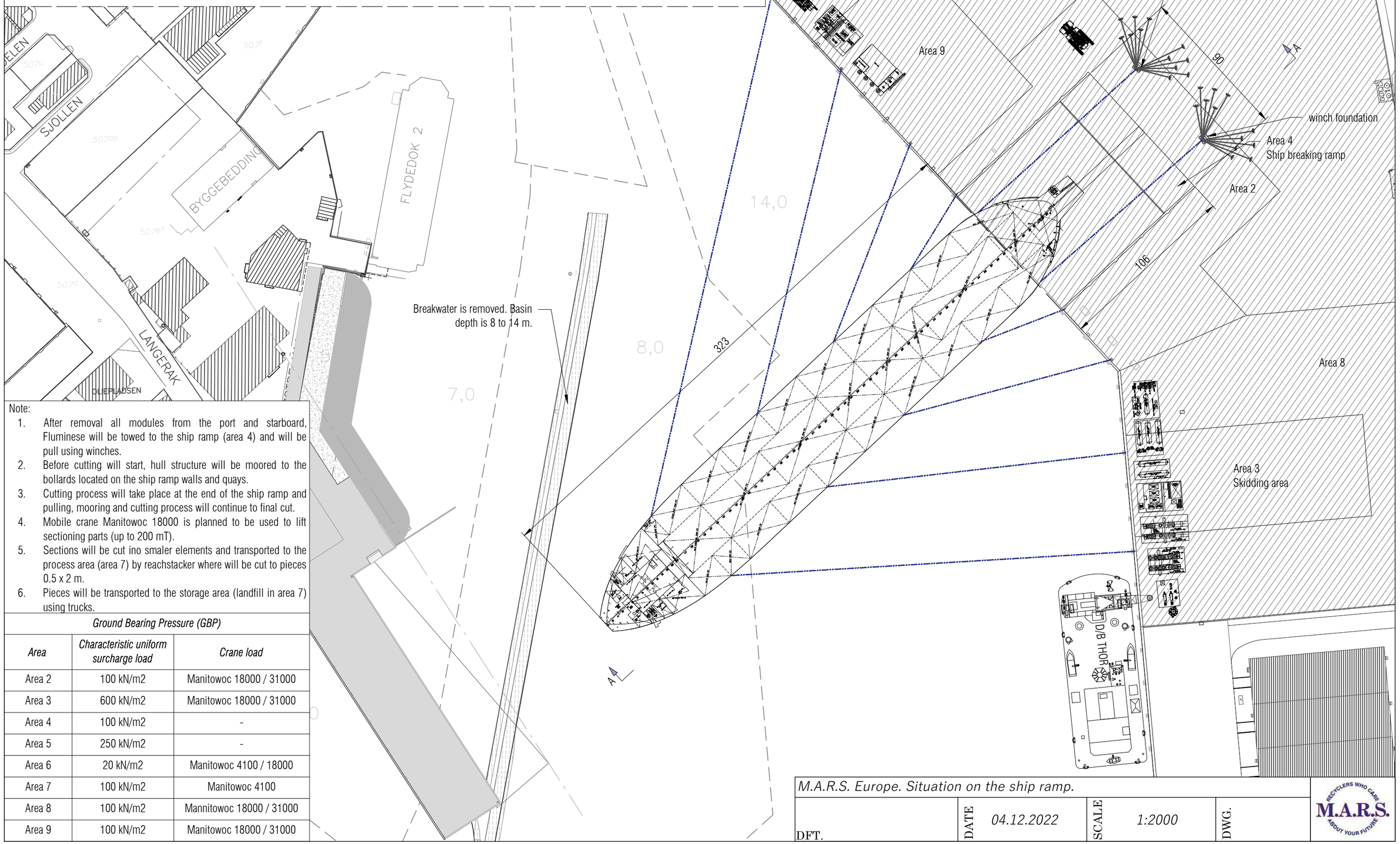


Note:

1. After removal all modules from the port and starboard, Fluminese will be towed to the ship ramp (area 4) and will be pull using winches.
2. Before cutting will start, hull structure will be moored to the bollards located on the ship ramp walls and quays.
3. Cutting process will take place at the end of the ship ramp and pulling, mooring and cutting process will continue to final cut.
4. Mobile crane Manitowoc 18000 is planned to be used to lift sectioning parts (up to 200 mT).
5. Sections will be cut ino smaler elements and transported to the process area (area 7) by reachstacker where will be cut to pieces 0.5 x 2 m.
6. Pieces will be transported to the storage area (landfill in area 7) using trucks.

Ground Bearing Pressure (GBP)

Area	*Characteristic uniform surcharge load*	*Crane load*
Area 2	100 kN/m2	Manitowoc 18000 / 31000
Area 3	600 kN/m2	Manitowoc 18000 / 31000
Area 4	100 kN/m2	-
Area 5	250 kN/m2	-
Area 6	20 kN/m2	Manitowoc 4100 / 18000
Area 7	100 kN/m2	Manitowoc 4100
Area 8	100 kN/m2	Mannitowoc 18000 / 31000
Area 9	100 kN/m2	Manitowoc 18000 / 31000



M.A.R.S. Europe. Situation on the ship ramp.

DFT.	DATE *04.12.2022*	SCALE *1:2000*	DWG.

RECYCLERS WHO CARE M.A.R.S. ABOUT YOUR FUTURE

6.5 Attachment 5 – DASR

eTranslate ApS
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Denmark

Certification of Translation Accuracy

Translation of document(s) from **Danish** to **English**

Customer Name:	Cecilie Nedergaard
Reference Number:	#12082601985
Order Date:	February 9, 2023

eTranslate ApS, a professional Danish translation agency, hereby certifies that the attached document(s) have been translated by an experienced, qualified, and competent professional translator. The translation is, to the best of our knowledge, a true and faithful rendering of the original document(s).

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A copy of the translation is attached to this certification.

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CVR No. 29189498

Modern American Recycling Services Europe, M.A.R.S
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DK-9900 Frederikshavn
E-mail: kim@mars-eu.dk

27 January 2023

Approval for inclusion in the EU's list regarding the Ship Recycling Regulation[1]

Case number: GEO-2022-07138
Document number: 7016731
Case handler:
Jette Brønnum Direct
phone:
+45 9845 6359

On 20 December 2022, Frederikshavn Municipality received the company's application for renewal of approval to the European list of approved ship recycling facilities. Additional information has subsequently been submitted. The company's existing authorisation expires on 23 August 2023.

Frederikshavn Municipality hereby grants renewed approval to Modern American Recycling Services Europe, M.A.R.S, Sandholm 60, 9900 Frederikshavn, to the European list of approved ship recycling facilities. The authorisation is granted pursuant to Article 14(1) of the Ship Recycling Regulation.

The approval is granted to the ship recycling facility at Sandholm 60, 9900 Frederikshavn.

Frederikshavn Municipality considers that the company fulfils the conditions of Article 13(1) of the Regulation.

The request
The request for renewal of the authorisation has been submitted in accordance with the Ship Recycling Order [2]. In accordance with Article 4 of the Order, the request must be accompanied by the following:

1. A ship recycling facility plan and evidence that the facility complies with the requirements of Article 13(1) of the Regulation (Section 4(2) of the Order).
2. Information on (Section 4(3)):
   a) The recyling method
   b) Type and size of ships that can be recycled
   c) The maximum annual tonnage of steel to be recycled by ship, expressed in tonnes of steel per year
3. The ship recycling facility must attach a declaration of acceptance to comply with the requirements of Article 13(2) of the Regulation (Section 4(4) of the Order).

[1] Council Regulation (EU) No. 1257/2013 of 20 November 2013 on ship recycling and amending Regulation (EC) No. 1013/2006 and Directive 2009/16/EC (Ship Recycling Regulation)
[2] Ministry of Environment and Food of Denmark Order No. 526 of 21 May 2017 on the designation of competent authorities and supplementary provisions pursuant to Regulation (EU) No. 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recyling and amending Regulation (EC) No. 1013/2006 and Directive 2009/16/EC, and delegation of certain powers of the Ministry of Environment and Food of Denmark under the Marine Environment Protection Act to the Danish Maritime Authority

The company's request is attached:

Re 1.
A Ship Recycling Facility Plan (SRFP) consisting of procedures, instructions and annexes. The company's management system is certified to ISO 9001 (quality), 45001 (working environment) and ISO 14001 (environment). The requirements for the content of the Ship Recycling Facility Plan (SRFP) and the information referred to in Article 13(1) of the Regulation are contained in the management system.

In order to document that all requirements are described, a reference document has been created that relates the requirements of the Regulation, as well as the requirements of the guideline to the specific documents in the management system.

Re 2.
Information on
a) The recyling method

The recyling method is shearing and cutting after the salvage item has been hauled onto the bedding facility or into the glide area. Hazardous materials and waste are removed from the ship while it is berthed. Cutting on ships and platforms at berth takes place in an enclosed hull.

b) Type and size of ships that can be recycled

All floating vessels: Ferries, cargo ships, fishing vessels, semi-submersibles, rigs and other floating offshore installations.
There are no restrictions on the size of vessels.
The approximate maximum handling size will be: Length: 400 metres x Width: 90 metres x Depth: 14 metres.

c) The maximum annual tonnage of steel to be recycled by ship, expressed in tonnes of steel per year

There are no restrictions. About 15 ships are expected to be recycled on an annual basis, corresponding to 150,000 tonnes per year.

Re 3.
Declaration by the company of its intention to comply with Article 13(2) of the Ship Recycling Regulation.

Municipality's assessment
Frederikshavn Municipality has granted an environmental permit to the company on 9 March 2018 and has granted an addendum to the environmental permit on 12 July 2022.
Environmental permits impose conditions aimed at preventing, reducing, minimising and eliminating adverse effects on the environment.

The company has chosen to ensure compliance with parts of Article 13(1) of the Regulation through their management system. It is the assessment of Frederikshavn Municipality that the terms and conditions of the environmental permit and the introduction of the management system by the company ensure compliance with Article 13(1) of the Ship Recycling Regulation.
1. The management system is certified according to ISO 9001 (quality), 45001 (working environment) and ISO 14001 (environment) on 4 May 2021.

The company has also submitted a declaration of intent to comply with Article 13(2) of the Ship Recycling Regulation.

Frederikshavn Municipality has not addressed issues related to the working environment. As regards the content and quality of documents relating to the working environment, the Danish Working Environment Authority is the appropriate authority. The Danish Working Environment Authority does not have to approve the content in advance, but will follow up during their future inspections.

Validity
The authorisation is valid for 5 years and will therefore expire on **27 January 2028**. If the company then wishes to remain on the European list of approved facilities, it must submit a new application for inclusion. The request should be submitted in good time to allow the authority to process it.

Right of access to documents
There is a right of access to documents in the case. Access to documents, and the restrictions on access to documents, follow from the rules in the Public Access Act, the Administrative Procedure Act and the Act on Access to Environmental Information.

Legal basis
Frederikshavn Municipality's approval is based on the Ship Recyling Order, which is laid down in Section 89a(1) and Section 89b of the Environmental Protection Act.

Publication and appeal procedure
The decision, which has been notified in accordance with the rules of the Environmental Protection Act, will be published by announcement on the municipality's website (www.frederikshavn.dk) and on the Digital Environmental Administration (https://dma.mst.dk) on **31 January 2023**.

Pursuant to Section 89a(4) of the Environmental Protection Act, the rules of the Environmental Protection Act apply to access to appeals and legal proceedings in connection with decisions based on regulations or rules issued pursuant to Section 89a(1).

According to the rules of the Environmental Protection Act, the decision can be appealed to the Environmental and Food Appeals Board by the applicant, by certain specified authorities and interest groups and by anyone who has an individual, substantial interest in the outcome of the case.

If you wish to appeal against this decision, you can appeal to the Environmental and Food Appeals Board. You appeal through the Appeals Portal, which you can log into via this link: https://kpo.naevneneshus.dk. You can also log in via borger.dk (as a citizen) or via virk.dk (as a company or association). You log in to the Appeals Portal with your NEM ID.

The appeal is sent through the Appeals Portal to the authority that took the decision. An appeal is filed when it is available to the authority in the Appeals Portal. You have to pay a fee of DKK 900 when you appeal. Companies and organisations must pay a fee of DKK 1,800. You pay the fee by a payment card in the Appeals Portal. The fee will be refunded if you win all or part of your appeal.

As a rule, the Environmental and Food Appeals Board must reject an appeal that is not submitted through the Appeals Portal unless there are special reasons for doing so. If you wish to be exempted from using the Appeals Portal, you must send a reasoned request to the authority that has taken a decision in the case. The authority will then forward the request to the Environmental and Food Appeals Board, which will decide whether your request can be granted.

The appeal period is 4 weeks from the public announcement of the approval and expires at midnight on **28 February 2023**.

Under Section 96 of the Environmental Protection Act, an appeal against an authorisation does not have suspensive effect unless the Minister decides otherwise. The use of the authorisation shall be at the sole responsibility of the applicant and shall not restrict the right of the appeal body to amend or revoke the decision appealed against.

According to Section 101 of the Environmental Protection Act, an action to challenge the decision under the Act must be brought before the courts within 6 months of the announcement of the decision.

Moreover
It should be noted that Frederikshavn Municipality must notify the Danish Environmental Protection Agency of ship recycling facilities that are to be removed from the list because they no longer meet the environmental requirements of Article 13 of the Regulation or if the company no longer wishes to recycle ships covered by the Regulation.

Yours sincerely,

Jette Brønnum
Engineer

Helle Müller
MSc - Environmental Assessment in Engineering and Science

Copy sent to:
The Port of Frederikshavn (info@pof.dk)
The Danish Patient Safety Authority, Supervision and Advisory North (trnord@stps.dk)
The Danish Society for Nature Conversation (dnfrederikshavn-sager@dn.dk
The Danish Society for Nature Conversation (dn@dn.dk)
The Danish Sports Fishing Association (post@sportsfiskerforbundet.dk)
The Danish Sports Fishing Association, local (skagerak@sportsfiskerforbundet.dk)
Greenpeace (info.dk@greenpeace.org)
Danish Fishers PO (mail@dkfisk.dk)
Frederikshavn Angling Association (formandlfo@gmail.com)
Birdlife Denmark (DOF) (frederikshavn@dof.dk and natur@dof.dk) the Danish Outdoor Council, head office(fr@friluftsraadet.dk)