 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Compliance Assurance Management System	SECE <input checked="" type="checkbox"/>	1 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016



BUMIARMADA

Waste Management Plan

OPS-MALT-ALM-ENV-PLN-0002

This document describes the management of all waste on the FSU Armada LNG Mediterrana.

Rev	Date	Prepared	Reviewed	Approved
R2	28 Jun 2016	Asraf Bakar	Capt. Jag Dhindsa	Capt. Morgan vG
R1	20 May 2016	Mok Seng Chew	Capt. Jag Dhindsa	Luc Pescio


For full revision history see next page

☐ Shared Without Restriction

☐ Restricted to BAB personnel only

☒ Freely Shared with Associated Organizations

☐ Confidential (selected personnel only)

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	2 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

Consulted

Date	Name	Title	Format
24 Feb 2016	Paul Duncan	Project Engineer	EC
24 Feb 2016	Gianluca Orlandi	Project manager	EC
24 Feb 2016	As Designated	Master on the FSU	EC
24 Feb 2016	As Designated	Chief Officer on FSU	EC

Distribution

Date	Name	Title	Format
19 Jul 2016	GALLEON	Company Intranet Pages	EC

Format: EC = Electronic Copy, HC = Hard Copy, CD = Compact Disk

Revision History

Date	Rev	Description
19 Jul 2016	R1	Issued for review
24 Feb 2016	R0	Issued for comment

Review Classification

Review Period Each Management Review Meeting	<input type="checkbox"/>
Review Period 1 Yr	<input type="checkbox"/>
Review Period 3 Yr	<input checked="" type="checkbox"/>
Review Not Required	<input type="checkbox"/>



 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	3 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016


TABLE OF CONTENTS

1.0 PURPOSE	5
2.0 SCOPE	6
3.0 REFERENCES	7
3.1 External References	7
3.2 Internal References	7
4.0 DEFINITIONS	8
5.0 RESPONSIBILITIES	9
6.0 REGULATORY INSTRUMENTS AND SCOPE	11
Table 6.1 Compliance with MARPOL	11
7.0 WASTE MANAGEMENT PLAN	13
7.1 Person in Charge – Waste	13
7.2 Safety Precautions	13
7.3 Waste Segregation	14
Table 7.1 Waste Categories	14
7.4 Waste Collection & Storage	15
7.4.1 Waste Collection	15
Table 7.2 Collection Locations	15
7.4.2 Waste Storage	16
7.4.3 Hazardous Waste	17
7.5 Waste Transportation & Disposal	19
7.5.1 Waste Oil	19
7.5.2 Sewage	19
7.6 Waste Management Evaluation, Inspection and Records	19
8.0 MARPOL ANNEX VI AND EMISSION CONTROL	21
8.1 Standby Propulsion AND STORM MOORING Mode	21
Table 8.1 Emission Requirement Compliance – Armada LNG Mediterrana	22
9.0 RELATED DOCUMENTS	23
APPENDIX A WASTE MANAGEMENT HIERARCHY	24
APPENDIX B WASTE MANAGEMENT BOOK	25
APPENDIX C CONTACTS	27
APPENDIX D RESTRICTED SUBSTANCES	28
APPENDIX E WASTE MANIFEST	29
APPENDIX F COMPACTOR OPERATING INSTRUCTIONS	30
APPENDIX G WASTE ARRANGEMENT PLAN	31
APPENDIX H WASTE SKIP SIGNS	32
APPENDIX I PROPERTIES OF WASTE WHICH RENDER IT HAZARDOUS	38
APPENDIX J WASTE ELECTRICAL & ELECTRONIC EQUIPMENT	39
APPENDIX K TANK CAPACITY PLAN	40
APPENDIX L SEWAGE TREATMENT PLANT	41
APPENDIX M WASTE DISPOSAL REGISTER	42
APPENDIX N COMPLAINT FORM FOR PORT INADEQUACY	43

 BUMI ARMADA	Floating Gas Solutions	ISM ☒	Page
	Waste Management Plan	SECE ☒	4 of 43
	Document No:	Revision R2	Date: 19 Jul 2016
	OPS-MALT-ALM-ENV-PLN-0002		

Abbreviations

AFGSML	Armada Floating Gas Services Malta Limited
BAB	Bumi Armada Berhad
BOG	Boil-Off Gas
CAMS	Compliance Assurance Management System
CO ₂	Carbon Dioxide
DG	Diesel Generator
EMAS	Eco-Management and Audit Scheme
EU	European Union
FOT	Fuel Oil Tank
FGS	Floating Gas Solutions
FSRU	Floating Storage Regasification Unit
FSU	Floating Storage Unit
HOD	Head of Department
IAPP	International Air Pollution Prevention Certificate
IMO	International Maritime Organization
ISO	International Standards Organization
LNG	Liquefied Natural Gas
LSA	Low Specific Activity
MARPOL	Marine Pollution: - International Convention for the Prevention of Pollution from Ships
MEPA	Malta Environment & Planning Authority
MSDS	Material Safety Data Sheet
MW	Mega Watt
NORM	Naturally Occurring Radioactive Waste
NOx	Nitrogen Oxide
ODS	Ozone Depleting Substances
PICW	Person in Charge – Waste
PPE	Personal Protective Equipment
SOx	Sulphur Oxide
SWL	Safe Working Load
STBD	Starboard
TG	Turbo Generator
VOC	Volatile Organic Compound
WEEE	Waste Electrical and Electronic Equipment
WMP	Waste Management Plan


 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	5 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

1.0 PURPOSE

Armada Floating Gas Services Malta Limited (AFGSML) – hereinafter referred to as the “Company” – recognises that legislative frameworks for the handling of waste require that the necessary measures be taken to protect human health and the environment by preventing and/or reducing the adverse impacts of the generation & management of waste. This is achieved by reducing the overall impact of resources used as well as improving the efficiency of such use. By virtue of these principles, site/installation operators must establish a framework to prevent, reduce and, in so far as is possible, eliminate from the outset the sources of pollution by adopting measures whereby recognized risks are eliminated.

The purpose of the *Waste Management Plan* (WMP) is to ensure compliant disposal of all waste generated on the FSU Armada LNG Mediterrana – hereinafter referred to as the “Installation” – in order to:

- Protect human health and the environment;
- Ensure compliance with international, and local Malta environmental & waste legislation;
- Ensure incompatible wastes are separated;
- Facilitate the recovery of materials for recycling;
- Allow effective waste management at the port location; and
- Comply with the *Compliance Assurance Management System* (CAMS).


 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	6 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

2.0 SCOPE

The provisions contained in this document apply to all waste generated in the course of both normal and special operations on the Installation. Additionally, because waste is generated in carrying out day to day domestic and operational services of the installation, the requirements contained in this Plan apply to all personnel on board.

Note¹: *A certain degree of flexibility is required to ensure that the Plan can be adapted to changes and development of new technologies in the recycling of waste streams. The installation operators shall take into account the general environmental protection principles of precaution and sustainability, technical feasibility and economic viability, protection of resources as well as the overall environmental, human health, economic and social impacts.*

Note²: *This WMP shall be revisited every 3 years to keep abreast with Malta's disposal technologies and waste management hierarchy (refer Appendix A).*

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	7 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

3.0 REFERENCES

3.1 EXTERNAL REFERENCES


ISO 14001	Environmental Management System
MFT / QA –HSE/18-10-11	Malta WMP for Ship Generated Waste.

Note: Always refer to the most recent edition of the reference works listed above.

3.2 INTERNAL REFERENCES


OPS-CBGF-ALL-OPS STD-0002	Operations Management Standard
OPS-CBGF-ALL-ENV-GDL-0001	Environmental & Waste Management Guideline
OPS-MALT-ALM-ENV-PLN-0001	Environmental Management Plan

Note: Always refer to the most recent edition of the reference works listed above.

 BUMI ARMADA	Floating Gas Solutions	ISM ☑	Page
	Waste Management Plan	SECE ☑	8 of 43
	Document No:	Revision	Date:
	OPS-MALT-ALM-ENV-PLN-0002	R2	19 Jul 2016


4.0 DEFINITIONS

Bumi Armada Berhad (BAB)	Mention of Bumi Armada Berhad (BAB) refers to all its subsidiaries (Bumi Armada Australia, Bumi Armada UK and Armada Floating Gas Services Malta Ltd) and Joint Venture (JV) companies (e.g. Forbes Bumi Armada Offshore Limited, SP Armada Oil Exploration Private Limited, and Angoil Bumi JV Limitada).
Company	Armada Floating Gas Services Malta Limited (AFGSML)
Compliance Assurance Management System (CAMS)	FPSO Operations' business management system, inclusive of QHSE management.
Floating Gas Solutions (FGS)	Bumi Armada Berhad's business unit responsible for supporting the design, operation & maintenance of the Company's FSRU and FSU installations.
Low Specific Activity (LSA)	LSA in the oil & gas industry originates from natural sources, however, the radioactivity is concentrated through industrial processes.
MARPOL	MARPOL 73/78 (International Convention for the Prevention of Pollution from Ships).
Person in Charge – Waste (PICW)	Individual on board the installation in charge of implementing the <i>Waste Management Plan</i> .
Special Areas	MARPOL defines certain sea areas as "special areas" in which, for technical reasons relating to their oceanographical and ecological condition and to their sea traffic, the adoption of special mandatory methods for the prevention of sea pollution is required. Under the Convention, these special areas are provided with a higher level of protection than other areas of the sea.
Special handling	A designation applied to potentially harmful materials that require strict procedures for packaging and labelling when disposed of ashore.
Transport Malta	Malta Transport Authority
Waste	Items which cannot be re-used after a prevention strategy (refer Appendix A): any substance or object which the operator discards or intends or is required to discard (and includes packaging or packaging waste), which will result in pollution of air, water, land and the environment.
Waste Management Book	The Garbage Record Book required by Annex V of MARPOL 73/78 (refer Appendix B).
Waste oil	Any mineral or synthetic lubrication or industrial oils which have become unfit for the use for which they were originally intended, such as used combustion engine oils and gearbox oils, lubricating oils, oils for turbines and hydraulic oils. Oil drains and bilge water contaminated with oil are included in this category and prohibited from discharge overboard.


 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	9 of 43
	Document No:	Revision	Date:
	OPS-MALT-ALM-ENV-PLN-0002	R2	19 Jul 2016

5.0 RESPONSIBILITIES

Position / Role / Competency Profile	Responsibility
FSU Master	<ul style="list-style-type: none"> Designate a person in charge of implementing the WMP. Ensure compliance with applicable & identified legislation. Ensure proper induction of all installation personnel with respect to waste segregation & proper handling of waste material. Review this Plan periodically, and report as a non-conformance, any deficiencies, errors or omissions, out-of-date information or suggestion to improve the same. Conduct internal audits, monitoring and "spot checks" on procedures & work practices to ensure compliance with specified legislation & the WMP.
Cargo Supervisor (Chief Officer)	<ul style="list-style-type: none"> Act as Person in Charge - Waste (PICW) and ensure implementation of the requirements of the WMP. Record of all waste generated on board, maintaining a record of all wastes transported ashore and ensure that waste trackers accompany such wastes. Ensure that training on waste management and on the operation of waste related equipment (such as waste compactor, or food macerator if on board) are delivered to designated personnel and records are kept. Ensure full compliance with waste management, including but not limited to, segregation. Maintain monthly records of waste emissions and of trends, as per WMP and maintain Garbage Record Book in compliance with MARPOL requirements. Produce and update the Waste Arrangement Plan to reflect location of bins and skips on board the installation and of contained types of waste. Prepare Waste Disposal Manifest in compliance with the requirements.
Maintenance Supervisor	<ul style="list-style-type: none"> Ensure that planned maintenance for waste process equipment is fully complied with Maintain records of all maintenance carried out on the equipment.
Head of Department (HOD)	<ul style="list-style-type: none"> Ensure collection, separation and processing of waste is efficient in their area of responsibility. Ensure waste management procedures on board are carried out in accordance with the WMP.
Camp Boss (Chief Cook)	<ul style="list-style-type: none"> Ensure that galley waste is properly segregated for shore disposal in respective bins.
FSU Operators (AFGSML)	<ul style="list-style-type: none"> Follow guidance contained in this Plan. Report as a non-conformance, any deficiencies, errors or omissions, out-of-date information or suggestion to improve the same.

 BUMIARMADA	Floating Gas Solutions	ISM ☑	Page
	Waste Management Plan	SECE ☑	10 of 43
	Document No:	Revision	Date:
	OPS-MALT-ALM-ENV-PLN-0002	R2	19 Jul 2016

Position / Role / Competency Profile	Responsibility
Operations Manager (Kuala Lumpur)	<ul style="list-style-type: none"> Coordinate reduction, reuse & recycling schemes & targets. Provide advice & assistance to contracts / procurement regarding the purchase of products which can be reused or recycled and in the requirements of contracted waste management services.
HSE Manager (Kuala Lumpur)	<ul style="list-style-type: none"> Provide advice, assistance & support to Installation on the implementation of their waste strategy & formulation of WMPs and promotion of awareness among installation personnel & contractors. Set annual performance targets and regularly assess the performance of the installation against these performance targets along with other Key Performance Indicators (KPIs) and the requirements of regulatory permits & consents.
Compliance Manager (Kuala Lumpur)	<ul style="list-style-type: none"> Provide guidance to Installation on regulatory & technical developments and monitor developments & innovations in the waste management industry.

 BUMIARMADA	Floating Gas Solutions	ISM ☑	Page
	Waste Management Plan	SECE ☑	11 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

6.0 REGULATORY INSTRUMENTS AND SCOPE

The Installation (FSU) is registered with the Flag State of Malta. Malta is party to *IMO MARPOL (73/78) (International Convention of Pollution Prevention)*. The primary requirement of this *Waste Management Plan* is to comply with the MARPOL Regulations as listed in Table 6.1. The FSU is classed with Bureau Veritas (BV) with a ship's notation.

TABLE 6.1 COMPLIANCE WITH MARPOL

MARPOL Regulation	Objective	Prohibited
MARPOL Annex I: Regulation 17 & 34	Oil pollution prevention	Discharge into the sea of oil or oil mixtures when vessel is not en-route.
MARPOL Annex IV: Regulation 11	Sewage & greywater management	Discharge of sewage into the sea.
MARPOL Annex V: Regulation 5	Garbage pollution prevention	Disposal into the sea of: <ul style="list-style-type: none"> ▪ All plastics, including but not limited to synthetic ropes, synthetic fishing nets, plastic bags & incinerated ashes from plastic products, which may contain toxic or heavy metal residues, ▪ Overboard discharge of food waste because the Installation is located within 12 nautical miles from land; and ▪ All other waste, including paper products, rags, glass, metal, bottles, crockery, dunnage, lining and packing materials, etc.
MARPOL Annex VI	Emission control	Control of emissions in: <ul style="list-style-type: none"> ▪ Reg 12 – Ozone-depleting substances, ▪ Reg 13 – Nitrogen Oxides (NO_x), ▪ Reg 14 – Sulphur Oxides (SO_x) & particulate matter, ▪ Reg 15 – Volatile Organic Compounds (VOCs)


Note²: *The Mediterranean Sea is gazetted a special area, established under MARPOL, due to particular problems i.e. heavy flow of maritime traffic & low water exchange caused by the land-locked nature of the sea.*

Maltese law prohibits the Installation from:

- Discharging, depositing or permitting escape of any dirt, ashes, steam, oil, filth or waste matter, whether liquid or solid, into the sea.
- Causing smoke, fumes, soot, ash, grit or oil to be emitted at the terminal in such quantity/density as deemed to be a nuisance/annoyance in the opinion of the Terminal Authority.
- Generating excessive noise deemed to be a nuisance/annoyance in the opinion of the Terminal Authority.


Ship maintenance activities, including but not limited to engine immobilization, painting, and hull cleaning, require a permit from Transport Malta.

In the event of any spillage or discharge of any dangerous, hazardous or poisonous substances or any contaminant or pollutant, the FSU Master (or his next in command during his absence) or duty officer shall immediately inform the Terminal (refer Appendix A) and take all necessary steps to limit the extent of, clean and otherwise deal with such spillage or discharge, including providing relevant information and expertise.

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	12 of 43
	Document No:	Revision R2	Date: 19 Jul 2016
	OPS-MALT-ALM-ENV-PLN-0002		

Waste management and recovery facilities are also supplemented with provisions in order not to infringe on EU waste management regulations. In Malta, waste management & recovery facilities are under the jurisdiction of the Malta Environment & Planning Authority (MEPA) (refer Appendix C) and permits are required for waste collectors, transporters and treatment facilities. *Maltese Law LN 184 of 2011 Regulation 9* requires the separation of all waste of different materials and different properties at source to facilitate or improve recovery operations. In addition to MARPOL, this WMP therefore complies with the relevant sections of Maltese waste laws *LN 184 & 441 of 2011*, which were transposed from the *EU Waste Framework Directive 2008/98/EC*. Furthermore, as a ship, compliance with the applicable sections of the following Port Notices apply:

- Transport Malta Act:
 - Port Notice No. 05/04 - Port Waste Management Plan
 - Port Notice No. 08/04 - Ship-Generated Waste Management Fee
 - Port Notice No. 03/08 - Ship Generated Waste Management Fee
 - Port Notice No. 05/08 - Management, Collection and Disposal of Waste from Ships in Maltese Ports
- Environment Protection Act and its subsidiary legislation including:
 - SL. 435.44 - Waste Management (Waste Oil) Regulation 2002
 - SL. 504.73 - Waste Management (Permit and Control) Regulation 2001
 - SL. 435.73 - Waste Management (Activity Registration) Regulations, 2004

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	13 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

7.0 WASTE MANAGEMENT PLAN

Waste will be generated in the machinery spaces, workshops, work stations on deck, cabins, galley areas, pantries, etc. In accordance with waste management hierarchy of MARPOL, Annex V (refer Appendix A), the strategy for managing waste will include the first priority i.e. prevention of waste, and then as additional fundamental principles, reuse of waste, recycling and other forms of waste recovery and, hence, reduction of the final disposal of such waste. The Installation will check at source, clean and repair, as necessary, products or components of products or packaging to maximize recovery and re-use. Measures, including instructions to suppliers, will be consistent with using reusable crates/totes/drums. As far as practicable, practice will minimize packaging by:

1. Bulk packaging;
2. Reusable or recyclable packaging and containers; and
3. Minimizing plastic packaging

Note⁴: *To facilitate collection, reuse and recovery including recycling, EU member states have adopted the identification and classification the nature of packaging materials according to:*

- *Manufacturing and composition,*
- *Reusable nature,*
- *Recoverable nature i.e. material recycling, energy recovery, composting, biodegradable*

All packaging produced in and imported into EU member states has appropriate marking either on the packaging itself or on the label, clearly visible and easily legible according to the following numbering system and/ or abbreviation:

- *1 to 19 - Plastic*
- *20 to 39 - Paper and cardboard*
- *40 to 49 - Metal*
- *50 to 59 - Wood*
- *60 to 69 - Textiles*
- *70 to 79 - Glass*

Identification may use an abbreviation for the relevant material e.g. HDPE for high density polyethylene.


7.1 PERSON IN CHARGE – WASTE

The person in charge of implementing the WMP is the Chief Officer.

7.2 SAFETY PRECAUTIONS

Safety precautions to be taken by all personnel during waste processing are as follows:

- All personnel involved must wear personal protective equipment (PPE); including added protection, as identified, when processing chemicals or any radioactive materials;
- Comply with the requirements for proper containers/skips with colour coded signs as per the *Waste Management Plan's* colour coding table (refer Table 7.3).
- Ensure containers / skips have secure lids to:
 - Prevent any waste falling during transportation,
 - Protect the contents from the elements; and
 - Reduce fire hazards.
- Ensure containers/skips have the correct colour coded & certified slings attached, within the correct Safe Working Load (SWL).
- Use safe lifting & carrying techniques whilst handling waste.


 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	14 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

7.3 WASTE SEGREGATION

For a high level of recycling to be attained and for health & safety problems to be avoided by those employed to collect, transport & process waste and in particular hazardous wastes, it is essential that waste be sorted at source in order to channel it to the most appropriate waste treatment installations. As guided by local waste regulations, which are structured in accordance with the waste treatment facilities available, all waste shall be segregated for appropriate storage, collection and transportation (refer Table below).

TABLE 7.1 WASTE CATEGORIES

Waste	Description
Non-hazardous Waste	
Biodegradable waste	Biodegradable plant waste, food and kitchen waste from galley and pantries. Note: PICW shall contact local competent authority regarding bio-waste treatment available. If required bio-waste shall be separated for preliminary storage and collection with a view to the composting and digestate of bio-waste.
Glass waste	Broken glass, bottles, containers, etc.
Plastic waste	Plastic packaging, bottles & components, etc.
Paper waste	Paper, cardboard, including cardboard composite.
Metal waste	Metal scrap, metal components, wire rope, metal tubular/tins/cylinders/drums.
Hazardous Waste	
Electrical & electronic equipment	All components, sub-assemblies and consumables of electrical or electronic equipment which are part of the product at the time of discarding governed by Maltese Law LN.63 of 2007 under the Environment Protection Act CAP.435 transposed from EU directive 2012/19/EU- Waste Electrical & Electronic Equipment (Recast).
Asbestos	The Installation has been declared "Asbestos Free".
Waste oil	Oil filters, oily rag, used spilled kits, etc.
Pyrotechnics	Explosives
Restricted substances	The substances listed in Appendix D or their threshold values restricted at source during manufacturing. Note: These restrictions only came into effect recently (refer Maltese law LN.39 and 347 of 2015).
Liquid hazardous waste	Includes, but is not limited to: <ul style="list-style-type: none"> ▪ Spent solvents ▪ Chemicals ▪ Paints ▪ Acids ▪ Refrigerant oil ▪ Cooking oil waste ▪ Chlorinated solvents
Pharmaceutical, health & biohazardous waste	Bandages, dressings, surgical waste, human tissue, hypodermic needles, medical laboratory waste, regurgitated, and bodily fluids from ill persons. Note: Injection needles and any other sharp material must be put into specific Sharps Containers which are sealed. Biohazardous waste contains infectious agents i.e. bacterial, viral, parasitic or fungal.
Radioactive waste	Including Naturally Occurring Radioactive Waste (NORM)

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	15 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

Note⁵: The Company (FSU operator) shall take into consideration the waste separation stipulated by the waste transporters and storage containers provided accordingly. A Waste Manifest shall be completed for each collection and transportation consignment (refer Appendix E).

Note⁶: Hazardous material requires special handling procedures & safe storage. All installation personnel handling hazardous waste (includes solids & liquid) shall be provided with awareness & handling training regarding the hazardous properties of the waste and correct PPE to be used.

7.4 WASTE COLLECTION & STORAGE

Various types of containers and receptacles (waste skips, bins, drums, etc.) will be provided for the collection, movement and storage of waste. Containers will be of a suitable design to prevent leaks (e.g. from failure through corrosion), weathering & scavenging, and to facilitate safe transport. Only containers in good condition shall be utilized.


7.4.1 Waste Collection

TABLE 7.2 COLLECTION LOCATIONS

Area	Collection Location
Every cabin, office (at each desk) and toilet	One waste receptacle made from non-combustible material for collecting wastes other than plastics and food wastes.
Every deck within the Accommodation	<ul style="list-style-type: none"> One Red coloured receptacle with lid made from non-combustible material for collecting plastics; and One yellow coloured receptacle with sealable top for collecting sharps, razor blades etc. At CCR One Orange coloured receptacle for hazardous waste
Galley, Mess Hall & Duty Mess	<p>The macerator in the galley shall be blanked off and put out of service. All waste food and packaging waste from the galley will be collected into the following receptacles:</p> <ul style="list-style-type: none"> One Green coloured receptacle for collecting food waste. One Red coloured receptacle for collecting plastic waste. One Blue coloured receptacle for collecting paper waste. One Yellow coloured receptacle for aluminium cans and metals, etc.
Medical bay:	<ul style="list-style-type: none"> Two BioPak medical waste receptacle with sealable top.
Engine Control room	<ul style="list-style-type: none"> One Green coloured receptacle for collecting food waste. One Red coloured receptacle for collecting plastic waste. One Blue coloured receptacle for collecting paper waste. One Yellow coloured receptacle for aluminium cans and metals, etc One Orange coloured receptacle for hazardous waste

The Deck Crew shall empty all bins daily, or as and when required, into the receptacle on each deck according to the type and nature of waste.

Galley personnel shall collect all waste from the Accommodation Deck receptacles, including food waste from the Galley, and compact this using the Compactor (1.5 m³ DT 15000MC MkIII Compactor) located on the upper deck STBD side next to the Emergency Generator Room (refer Appendix F for the operating instructions). This waste shall be transferred daily into the respective colour-coded storage containers (upper deck storage area), ensuring separation into the correct containers. The PICW shall ensure that no floating solids or foam is disposed of with the food waste into the skips.

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	16 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

The designated Sick Bay Crew will collect all medical & biohazardous waste, including sharps, from each deck within the Accommodation and ensure that this is securely packed, labelled, and manifested with quantities recorded in accordance with this WMP, before storing in the medical waste container on the STBD side laydown area.

7.4.2 Waste Storage

Garbage storage on board is designated at the upper deck Starboard side aft of the Emergency Generator Room (refer Appendix G) and skips are colour coded as per Table 7.3.


<h2 style="margin: 0;">WASTE MANAGEMENT AREA</h2>	 BUMIARMADA														
<h3 style="margin: 0;">ARMADA LNG MEDITERRANA</h3> <p style="margin: 5px 0;">Waste storage is on the upper deck Starboard side, crane aft of the Emergency Generator Room. Skips are colour coded with signs depicting the waste type.</p>															
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Colour</th><th style="width: 80%;">Description</th></tr> </thead> <tbody> <tr> <td style="background-color: green; color: white;">GREEN</td><td>Biodegradable Waste</td></tr> <tr> <td style="background-color: black; color: white;">BLACK</td><td>Glass Waste</td></tr> <tr> <td style="background-color: red; color: white;">RED</td><td>Plastic Waste</td></tr> <tr> <td style="background-color: blue; color: white;">BLUE</td><td>Paper Waste</td></tr> <tr> <td style="background-color: yellow; color: black;">YELLOW</td><td>Metal Waste</td></tr> <tr> <td style="background-color: orange; color: black;">ORANGE</td><td>Hazardous Waste</td></tr> </tbody> </table>	Colour	Description	GREEN	Biodegradable Waste	BLACK	Glass Waste	RED	Plastic Waste	BLUE	Paper Waste	YELLOW	Metal Waste	ORANGE	Hazardous Waste	<p style="font-size: 1.2em; margin: 0;">The Person In Charge of Waste (PICW) is the <u>Chief Officer</u>.</p>
Colour	Description														
GREEN	Biodegradable Waste														
BLACK	Glass Waste														
RED	Plastic Waste														
BLUE	Paper Waste														
YELLOW	Metal Waste														
ORANGE	Hazardous Waste														
<p style="margin: 0;">ONLY AUTHORIZED PERSONNEL ALLOWED TO ENTER THIS AREA</p>															

Figure 7.1 Waste Storage Sign (example)

Table 7.3 Waste Management Colour Coding Plan

Colour	Description
GREEN	Biodegradable Waste
BLACK	Glass Waste
RED	Plastic Waste
BLUE	Paper Waste
YELLOW	Metal Waste
ORANGE	Hazardous Waste

Waste shall be separated & stored in containers as per Table 7.4 (refer Appendix H for the waste skip signs). Storage containers shall be fitted with wheels for easy handling and marked with identification numbers, as well as their respective *Tare Weight*, *Gross Weight*, and *Safe Working Load* (SWL). Container coverings shall be secure, impermeable & watertight.

Each storage container shall be provided with a specific lifting arrangement of polypropylene bags which are segregated as per waste types.


 BUMIARMADA	Floating Gas Solutions	ISM ☑	Page
	Waste Management Plan	SECE ☑	17 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

Table 7.4 Provisions for Waste Storage

Waste	Storage	Description
Bio-Waste	2 x 660litre bins coded green	Biodegradable plant waste, food and kitchen waste from galley and pantries. Note: PICW shall contact local competent authority regarding biowaste treatment available. If required bio-waste shall be separated for preliminary storage and collection with a view to the composting and digestate of bio-waste.
Glass Waste	1 x 660 litre bins coded black	Broken glass, bottles, containers
Plastic Waste	2 x 660litre bins coded red	Plastic packaging, bottles & components
Paper waste	2 x 660litre bins coded blue	Paper, cardboard, including composite.
Metal Waste	2 x 660 litre skips coded yellow.	Metal scrap, metal components, wire rope, metal tubular/tins/cylinders/drums.
Hazardous Waste	1 x 660 litre bins coded orange	Hazardous waste means waste which displays one or more of the hazardous properties listed in Appendix I and includes waste oil.
Pharmaceutical & Health Waste	2 x 20 litrebins	Bandages, dressings, surgical waste, human tissue, hypodermic needles, medical laboratory waste, regurgitated, and bodily fluids from ill persons. Note: Pharmaceutical waste is classed as hazardous waste and will be disposed in the hazardous waste skip. Injection needles and any other sharp material must be put into specific sharps containers which are sealed.

7.4.3 Hazardous Waste

Hazardous waste shall be regulated under strict specifications in order to prevent or limit, as far as possible, the potential negative effects on the environment and on human health. IMO MEPC.197 (62) requires that an inventory of hazardous materials be kept on board and that hazardous waste management shall as such include all hazardous materials in the inventory.


Note⁷: Hazardous waste may not be mixed, either with other categories of hazardous waste or with any other waste, substances or materials. Mixing shall include the dilution of hazardous substances.

Hazardous waste shall be packaged and labelled in accordance with the international and community standards in force for temporary storage in the course for collection and transport. Care shall be taken to ensure that restricted (hazardous / dangerous) wastes are properly separated & labelled to prevent unwanted reactions. Where necessary, the appropriate *Material Safety Data Sheet* (MSDS) shall be attached to the Restricted Waste and passed to the collection permit holders (refer WFD 2008/98/EC Annex III).

The management criteria for notable hazardous waste is provided below:

7.4.3.1 Waste Electrical and Electronic Equipment (WEEE)

To facilitate recycling & extraction of hazardous waste including mercury and cadmium, all WEEE on board must be separated, packed and labelled for transportation to treatment permit holders. Separation must prioritize temperature exchange equipment containing ozone-depleting substances & fluorinated greenhouse gases, fluorescent lamps containing mercury, photovoltaic panels, etc. as listed in Appendix J.

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	18 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

Note⁸: More exhaustive lists are provided in EU Directive 2012/19/EU if the equipment on board requires this.

7.4.3.2 Asbestos

An *Asbestos Free Certificate* has been issued.

7.4.3.3 Waste Oil

Waste oil of different characteristics must not be mixed with other kinds of waste or substances, if such mixing impedes their regeneration in particular by removing the contaminants, the oxidation products and the additives contained in such oils.

Waste oil must be stored in oil tight containers, covered and labelled for collection and transportation to the regeneration or disposal facilities. Oils that pose a health hazard, such as refrigerant oil, must be handled as hazardous liquid waste (refer Section 7.4.3.7).

Note⁹: Refer to MARPOL Annex I & LN 184 of 2011 transposed from EU Waste Framework Directive 2008/98/EC.

Note¹⁰: The Oily Water Separator shall be decommissioned once the FSU arrives at the Delimara Jetty. The oil drains & oily water will be transferred to a 50.4 m³ bilge tank (refer Appendix K for the Tank Capacity Plan).

7.4.3.4 Paints

Left over paints must be re-used completely and empty paint tins separated for collection.

7.4.3.5 Pyrotechnics

Arrangements must be made for collection by authorized collectors with the relevant permits. Disposal must be manifested in the *Dangerous Goods Declaration*, which must be completed before transportation. Pyrotechnics must be securely packed with warning signs for collection and transportation.

7.4.3.6 Restricted Substance

If located they must be specially separated, packed and labelled for disposal.

7.4.3.7 Liquid Hazardous Waste

Liquid hazardous waste must be stored in closed containers & labelled for disposal ashore. Installation personnel must ensure that such labels contain the name of the substance and the appropriate MSDS hazard warning.

7.4.3.8 Pharmaceutical, Health and Bio-hazardous Waste


Pharmaceutical, health & bio-hazardous waste must be isolated, packaged and disposed of as hazardous waste. Transportation of this waste to onshore must be manifested in the *Dangerous Goods Declaration* and also in the Medic's Logbook.

7.4.3.9 Sewage

Note¹¹: Refer to MARPOL Annex IV and EU Sewage Sludge Directive 86/278/EEC.

The FSU's sewage treatment plant (Sasakura Super Trident Treatment Plant) is certified in accordance with MEPC.2 (VI) (refer Appendix L). After treatment, sewage effluent will be discharged to a Sewage Holding Tank (converted from 5S FOT – refer Appendix K). Grey water & galley drain water will also be sent to the Sewage Holding Tank.

The Sewage Holding Tank contents will be treated by chlorine dosing (as recommended by the supplier).

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	19 of 43
	Document No:	Revision R2	Date: 19 Jul 2016
	OPS-MALT-ALM-ENV-PLN-0002		

7.4.3.10 Radioactive Waste

Radioactive waste (due to the high alpha radiation content). Low Specific Activity (LSA) is a significant health hazard if inhaled or ingested therefore appropriate PPE must be worn at all times. LSA waste must be double bagged, sealed, labelled, taped & tagged as a minimum. The manifest should indicate "LSA Contaminated". A *Dangerous Goods Declaration* form must be completed prior to transportation handling of radioactive waste.

When transporting any radioactive contaminated material such as NORM then this container must be transported individually to avoid cross contamination with other waste.

New containers shall be provided for subsequent collection; contaminated containers must not be placed on board.

7.5 WASTE TRANSPORTATION & DISPOSAL

Waste collection boats shall periodically be berthed alongside the STBD side of the FSU and waste storage containers shall be lifted by the cranes and emptied into the respective sections on the boat for transportation ashore to the recovery & disposal facilities. On completion, the waste areas and empty containers shall be hosed down and cleaned, ready for storage.

The Barge PICW, should not accept any uncovered or leaking containers of liquid waste. The PICW accepting waste shipments shall receive a completed *Waste Manifest* (refer Appendix E) and should confirm the accuracy & completeness of the *Waste Manifest* as well as ensure that containers are properly secured during transport. Terminal transporters shall send the collected waste to the respective waste treatment facilities and provide *Waste Disposal Manifests* to designated onshore Logistics personnel.

7.5.1 Waste Oil

Oily water shall be periodically discharged via a standard discharge connection (refer MARPOL Annex I Regulation 13) on the upper deck starboard side of the Installation. Discharge shall be to a Barge for disposal. The disposal of waste oil, including oily water, shall be recorded in the installation's *Oil Record Book* kept on board.

If required, albeit not expected during the service period, any sludge is deposited in the bilge tank, (this may include scales), this shall be removed by an authorized contractor and placed into bags for disposal on transportation Barges.

Note¹²: *There is no sludge or contaminant discharge from the LNG cargo tanks.*

Note¹³: *Waste oil is considered hazardous because it is carcinogenic. Therefore, waste oil containing more than 50 ppm of PCB is prohibited from incineration.*

7.5.2 Sewage


The treated grey water will be discharged via an upper deck starboard sewage standard discharge connection (MARPOL Annex IV Regulation 10) to an authorized barge for disposal.

Note¹⁴: *The discharge of sewage overboard is prohibited in Maltese waters.*

7.6 WASTE MANAGEMENT EVALUATION, INSPECTION AND RECORDS

The PICW shall conduct a weekly inspection of:

- Deck level waste separation;
- Upper deck preliminary storage area; and review the
- Waste management records.

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	20 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016


The PICW shall submit a report to the FSU Master. The PICW shall maintain the *Waste Disposal Register* (refer to Appendix M) and copies of all the following waste management documentation:

- *Waste Manifest Form*
- *Oil Record Book*
- Receipts and certificates from waste disposed of ashore
- *Waste Handling & Record Keeping Requirements Form*

Note¹⁵: *The disposal log shall state the origin, nature, quantities and destination of waste collected and transported.*

Separate chronological records of hazardous waste stating the quantity, nature and origin of the waste and where relevant, the destination, frequency of collection, mode of transport and treatment method foreseen in respect of the waste shall be kept. *Hazardous Waste Records* shall be preserved for at least 12 months and the information shall be made available, on request, for review or investigation by the competent authority.

Periodic dialogue with the waste transporter shall occur, especially for hazardous/ pharmaceutical/radioactive waste arrangements so as to evaluate the waste separation and collection processes. Participation in the local Community *Eco-Management and Audit Scheme* (EMAS) shall also be encouraged. The PICW shall also be made familiar with the enforcement & penalties applicable to infringements of abandonment, dumping or uncontrolled management of waste.

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	21 of 43
	Document No:	Revision R2	Date: 19 Jul 2016
	OPS-MALT-ALM-ENV-PLN-0002		

8.0 MARPOL ANNEX VI AND EMISSION CONTROL

The Installation shall be issued with an IAPP (*International Air Pollution Prevention Certificate*) on completion of the Initial Survey carried out by Class in accordance with the *International Convention for the Prevention of Air Pollution from Ships - Annex VI*. Thereafter periodical surveys shall be dealt with.

The cargo containment system of the Installation is a closed loop system so there is no LNG cargo discharge to the environment. The LNG Boil-off Gas (BOG) is used as fuel gas for the auxiliary boilers. Any excess BOG will be sent ashore as fuel gas for the power station generators. In the event that BOG is beyond the above consumption, this will be burnt in the auxiliary boilers and excess steam dumped to the main condenser.

The Installation's propulsion system, including auxiliary power source, will be contracted on standby mode for the initial operating period of one year. Thereafter the system shall be decommissioned and the Installation shall be on storage mode with storm mooring scenario.

8.1 STANDBY PROPULSION AND STORM MOORING MODE

At all times when the FSU is berthed to the Jetty, the FSU shall be supplied with shore power supply of 1 x 100% of 3MVA.

Standby propulsion mode shall be applicable during Storm Mooring condition or whenever the FSU is required to be disconnected from the Jetty and it is for one (1) year duration effective FSU Scheduled Delivery Date.

During *standby propulsion mode*, the 2 main boilers, main turbines including gear box, shafting & propeller equipment, steering gear, one Turbo (STBD Turbo Generator (TG)) and ship's auxiliary diesel (Yanmar Diesel Generator (DG)¹⁶) generators shall be on standby mode. The ship's power will be supplied by the Yanmar DG with the STBD TG on standby mode. During maintenance of the Yanmar DG or when the Yanmar DG is not available, the STBD TG will act as the power source.

The main boilers will be operating on BOG when fired up.

Note¹⁶: A NO_x exemption request for operation in the EU will required to be approved by Transport Malta.

Note¹⁷: The Yanmar DG is an existing generator. Since the ship was built in 1985, she is not required to comply with Marpol Annex VI Tier I, II and III requirements. Furthermore, her power rating is less than 50 MW and is thus not subject to EU Directives for emission controls.

On completion of the above one-year duration of standby propulsion mode, the power supply, during Storm Mooring condition or whenever the FSU is required to be disconnected from the Jetty, shall be supplied from the containerized 2 MW Caterpillar Diesel Generator (Cat DG)^{17A} installed on the main deck. The two (2) new 20-tonne auxiliary boilers shall be in operation to power the gas compressor(s), depending on power demand.

Note^{17A}: The Cat DG is a new generator with Marpol Annex VI Tier I compliance. The exemption for complying with Marpol Annex VI Tier III requirements will need to be approved by Transport Malta and Flag.



 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	22 of 43
	Document No:	Revision	Date:
	OPS-MALT-ALM-ENV-PLN-0002	R2	19 Jul 2016


TABLE 8.1 EMISSION REQUIREMENT COMPLIANCE – ARMADA LNG MEDITERRANA

Requirement	Compliance Detail
Ozone Depleting Substances (ODS) – Regulation 12	The Installation is free of prohibited ODS and such substances subject to subsequent amendment of regulation shall not be introduced on board. The fire extinguishing system on board has been converted into a CO ₂ drenching system. The refrigeration and air conditioning systems have been converted and are using R407c and R404a.
Nitrogen Oxide (NO _x) – Regulation 13	The new auxiliary boilers and the Cat DG are not required to comply with the EU NO _x Regulation until 2025. The 1901 kW Cat DG is now located on the main deck STBD side of the Accommodation. The DG was certified by Lloyd's Register of Shipping to Tier 1, with exemption to Tier II & III, as granted by Transport Malta.
Sulphur Oxides (SO _x) and Particulate Matter – Regulation 14	This Installation shall be moored in Marsaxlokk which is currently not a designated SO _x emission control area. Notwithstanding the above, the Installation will only use marine gas oil with 1.5% by mass sulphur content in compliance with Marpol Annex VI and EU Directive 2005/33/EC. Hence SO _x emission is compliant.
Volatile Organic Compounds (VOCs) – Regulation 15	The LNG containment and export system does not contain non-methane VOC retention systems and as such this Regulation is not applicable.
Shipboard Incineration – Regulation 16	The ship's incinerator shall be decommissioned once stationed in Marsaxlokk Bay, hence Regulation 16 is not applicable.

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	23 of 43
	Document No:	Revision R2	Date: 19 Jul 2016
	OPS-MALT-ALM-ENV-PLN-0002		

9.0 RELATED DOCUMENTS

<i>TBA</i>	Garbage Record Book
<i>CBGF-ENV-FRM-0001</i>	Waste Manifest Form
<i>CBGF-ENV-FRM-0002</i>	Waste Disposal Register
<i>TBA</i>	Oil Record Book

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	24 of 43
	Document No:	Revision R2	Date: 19 Jul 2016
	OPS-MALT-ALM-ENV-PLN-0002		

APPENDIX A WASTE MANAGEMENT HIERARCHY

The *Waste Management Plan* (WMP) shall be evaluated periodically (at least every 3 years) to ensure a framework for the following hierarchy:

1. Prevention¹

Measures taken before a substance, material or product has become waste that reduce:

- The quantity of waste, including through re-use or extension of the life span of products;
- The adverse impacts of the generated waste on the environment and human health; or
- The content of harmful substances in material and products.

2. Re-use

Operation by which products or components that are not waste are used again for the same purpose for which they were conceived. Programs shall be set up to promote repair and re-use on board.

3. Recycle

Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations. Separation of waste shall set up separate collection to meet the necessary quality standards for the relevant recycling sectors.


4. Recovery

Waste shall be separated for collection to facilitate recovery operation and shall not be mixed with other waste or material with different properties.


5. Disposal

Measures taken for separation and containment of waste which is not recoverable to facilitate storage and collection without endangering human health, harming the environment and in particular without risk to water and air and causing nuisance through odours.

Note¹: *Waste prevention programs and consumption patterns shall be implemented in support of the prevention activities.*

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	25 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX B WASTE MANAGEMENT BOOK

GARBAGE RECORD BOOK		 BUMIARMADA
NAME OF SHIP / INSTALLATION:	FSU ARMADA LNG MEDITERRANA	
IMO NUMBER:		
PERIOD: FROM:-	TO:-	

1. INTRODUCTION

In accordance with Regulation 10 of Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), as amended by Resolution MEPC.201(62), a record is to be kept of each discharge operation or completed incineration. This includes discharges into the sea, to reception facilities, or to other ships as well as the accidental loss of garbage. The discharge or incineration record is to be recorded in the Garbage Record Book and be signed for on the date of incineration or discharge by the Officer in Charge. Each completed page of the Garbage Record Book shall be signed by the Master of the ship. The entries in the Garbage Record Book shall be in English as well as the language of the crew if it is other than English. Any required placards shall similarly be written in English and the language of the crew if other than English.

2. GARBAGE & GARBAGE MANAGEMENT

Garbage includes all kinds of food, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the vessel and liable to be disposed of continuously or periodically except those substances which are defined or listed in other annexes to MARPOL 73/78 (such as oil, sewage or noxious liquid substances).

The Guidelines for the Implementation of Annex V of MARPOL* should also be referred to for relevant information.


3. DESCRIPTION OF THE GARBAGE

The garbage is to be grouped into categories for the purposes of the Garbage Record Book (or ship's official log book) as follows:

- | | |
|----------------------|-----------------------|
| A. Plastics | B. Food wastes |
| C. Domestic wastes | D. Cooking oil |
| E. Incinerator ashes | F. Operational wastes |
| G. Cargo residues | H. Animal carcass(es) |
| I. Fishing Gear** | |

* Refer to the Guidelines for the Implementation of Annex V of MARPOL 73/78, as amended by resolutions.

** Refer to Guidelines to be developed by the Organization

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	26 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

4. ENTRIES IN THE GARBAGE BOOK

4.1. Entries in the Garbage Record Book shall be made on each of the following occasions:

4.1.1. When garbage is discharged to a reception facility*** ashore or to other ships:

1. Date and time of discharge.
2. Port or facility, or name of ship.
3. Category of garbage discharged.
4. Estimated amount discharged for each category in cubic meters.
5. Signature of the officer in charge of the operation.

4.1.2. When garbage is incinerated:

1. Date and time of start and stop of incineration.
2. Position of the ship (latitude and longitude) at the start & stop of incineration.
3. Categories of garbage incinerated.
4. Estimated amount incinerated in cubic meters.
5. Signature of the officer in charge of the operation.

4.1.3. When garbage is discharged into the sea in accordance with regulations 4, 5 or 6 of Annex V of MARPOL:

1. Date and time of discharge.
2. Position of the ship (latitude and longitude).

Note: For cargo residue discharges, include discharge start and stop positions.

3. Category of garbage discharged.
4. Estimated amount discharged for each category in cubic meters.
5. Signature of the officer in charge of the operation.


*** Ship's masters should obtain from the operator of the reception facilities, which includes barges and trucks, a receipt or certificate specifying the estimated amount of garbage transferred. The receipts or certificates must be kept together with the Garbage Record Book.

4.1.4. Accidental or other exceptional discharges or loss of garbage into the sea, including in accordance with regulation 7 of Annex V of MARPOL:

1. Date and time of occurrence.
2. Port or position of the ship at the time of occurrence (latitude, longitude and water depth if known).
3. Categories of garbage discharged or lost.
4. Estimated amount for each category in cubic metres.
5. The reason for the discharge or loss and general remarks.

4.2. Amount of garbage:


The amount of garbage on board should be estimated in cubic meters, if possible separately according to category. The Garbage Record Book contains many references to estimated amount of garbage. It is recognized that the accuracy of estimating amounts of garbage is left to interpretation. Volume estimates will differ before and after processing. Some processing procedures may not allow for a usable estimate of volume, e.g. the continuous processing of food waste. Such factors should be taken into consideration when making and interpreting entries made in a record.

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	27 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX C CONTACTS


Transport Malta Malta Transport Centre, Marso, MRS 1917, Malta <i>Tel: +356 2291 4200</i> <i>Fax: +356 2124 1460</i> <i>Email:</i>	Competent Authority: MEPA
Terminal Authority Captain Harbour Master, Marsa, MRS 1917, Malta <i>Tel: +356 2291 4410</i> <i>Mobile:</i> <i>Email: fritz.farrugia@transport.gov.mt</i>	Waste Collector and Transporter

IMPORTANT TERMINAL / PORT CONTACTS	
Safety & Environmental accidents, Emergencies, Close calls, Spillages or Unsafe Situations:	Security Office Phone: (+356) 2225 1604 <i>Will respond immediately to any accident or to the nearest Terminal Official.</i>
Health Clinic	Phone: (+356) 2225 1604 <i>Located at the Terminal within 1km of all quays and is manned on a 24-hour basis.</i>
Duty Manager	
Safety Manager	
VHF Channel (Terminal)	
Inadequacies of Port Waste Reception Facilities	Phone; (+356) 2225 1604 <i>Malta Freeport Security (24-hr contact) on and report in writing on the Complaints form (refer Appendix N) to Harbour Master, Transport Malta.</i>
QA-HSE Department	


 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	28 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX D RESTRICTED SUBSTANCES


No	Restricted Substances
	<i>Reference is made in Maltese Law LN.39 and 347 of 2015 dated to 2015 and to be updated periodically</i>
1.	Lead
2.	Mercury
3.	Cadmium
4.	Hexavalent chromium
5.	Polybrominated biphenyls (PBB)
6.	Polybrominated diphenyl ethers (PBDE)
7.	Bis (2-ethylhexyl) phthalate (DEHP)
8.	Butyl benzyl phthalate (BBP)
9.	Dibutyl phthalate (DBP)
10.	Diisobutyl phthalate (DIBP)

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	29 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX E WASTE MANIFEST

WASTE MANIFEST		 BUMIARMADA		
INSTALLATION NAME:	ARMADA LNG MEDITERRANA			
DATE SHIPPED:				
Part A: DETAILS				
BARGE VESSEL / SHORE CONTRACTOR #				
CNEN ID #:				
QUANTITY:				
Part B: DESCRIPTION & DESTINATION				
MATERIAL DESCRIPTION:				
DESTINATION:				
COMMENTS				
INSTALLATION ACKNOWLEDGEMENT				
<i>I confirm that the waste has been checked and is properly segregated, labelled and secured.</i>				
	NAME	SIGNATURE	DATE	
PERSON IN CHARGE – WASTE:				
BARGE VESSEL / SHORE CONTRACTOR ACKNOWLEDGEMENT				
<i>I confirm that the waste has been received and is properly segregated, labelled and secured.</i>				
	NAME	SIGNATURE	DATE	
MASTER:				
WASTE MANAGEMENT CONTRACTOR ACKNOWLEDGEMENT				
<i>I confirm that the waste has been received and is properly segregated, labelled and secured.</i>				
	NAME	SIGNATURE	DATE	
CONTRACTOR RECIPIENT:				

CBGF-ENV-FRM-0001_R0

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	30 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX F COMPACTOR OPERATING INSTRUCTIONS

The garbage is collected in the belonging containers/ big-bags. Garbage may either be deployed directly in the container to be placed inside the compactor chamber, or one or more containers can be freestanding to be filled with garbage before inserting the container into the compactor.

1. Install a big bag in the container;
2. Place the container in the compactor chamber and secure it with the left and right locking devices. The container is now ready to receive garbage.
3. When the container is fully loaded with garbage, it is time to run the compaction cycle. First close the loading hatch.

Note^a: The compactor has an emergency switch that prevents operation as long as the loading hatch is open.


4. Ensure that the locking devices are mounted and secured. Failing to do this may damage the compactor during compaction.
5. Switch on the mains switch (if any) to supply voltage to the compactor. The "VOLTAGE ON" light on the el-panel should be lit.
Note^b: In case of emergency, press the "EMERGENCY STOP" button immediately. To release a depressed ESB again, rotate it counter-clockwise.
6. Start the compactor by pressing the START button (press and hold for 2-3 seconds) on the el-panel. The compactor will automatically run through the press-cycle, including "press & hold" period and return of ram plate.
7. When the compactor has finished the press-cycle and has stopped operation, you can open the door for inspection. If needed, fill up the container again and repeat from step 3 until the compactor is unable to reduce the volume of the garbage.
8. When the compactor is unable to reduce volume of the garbage, the big-bag is regarded as filled and must be exchanged.
9. Press "STOP" on the el-panel and release the locking devices.
10. Roll the container out of the compaction chamber and within the range of an on-board crane/ lifting device.
11. Seal the big bags inner liner, hoist out the bag and store it in an appropriate storage area until it can be deployed to shore.
12. Start over again with step 1.

Note^c: For waste with a high degree of re-expansion (cardboard, plastic etc.), it can be useful to let ram plate rest in lowest position (extended press and hold function).

During the final compaction cycle, just press "STOP" on the el-panel and leave garbage under pressure as long as possible. This is necessary in order to remove air pockets in the waste. By doing this you will remove air from the waste and obtain a greater compaction ratio.



FSU Garbage Compactor

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	31 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX G WASTE ARRANGEMENT PLAN

Disposal Bins Location 5

Garbage Skips and segregation area

Disposal Bins Location 3

Disposal Bins Location 1

VESSEL's Images with Designated Disposal Areas to Go here


Disposal Bins Location 4

NORM Collection Container

Disposal Bins Location 2

Example of disposal bins ↔



 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	32 of 43
Document No:	OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX H WASTE SKIP SIGNS

Note: The skip signs will be A3 size and made from non-corrosive material.

DOMESTIC WASTE	
Mormi Domestiku	
MALTA MARSAXLOKK BAY PROHIBITS IMPROPER DISPOSAL OF WASTE	
MALTA Marsaxlokk BAY jipprojbixxi rimi mhux xieraq TA 'SKART	
<p>The following item may be disposed of in this container:</p> <ul style="list-style-type: none"> Any food stuffs that cannot be macerated such as large bones, etc. Domestic waste Wood/glass/lightbulbs Living Quarters waste Construction/demolition debris, if uncontaminated Rubber hoses and ropes if uncontaminated 	<p>Il- punt li ġej jista 'jinbiegħ f'dan kontenitur:</p> <ul style="list-style-type: none"> Kwalunkwe prodotti tal-ikel li ma jistgħux jiġu immaċerat bħal għadam kbar , eċċ Skart Domestiku Injam / Hġiegħ / bozoz Skart kwartieri fejn jgħixu Debris Kostruzzjoni / Twaqqiġħ , jekk mhux kontaminata Manek tal-gomma u Hbula jekk mhux ikkontaminat
In the event of a spill of this waste contact the FSU Superintendent / Bosun	
Fil -każ ta ' tixrid ta' dan il-kuntatt skart tal- FSU Suprintendent / Bosun	

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	33 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

PLASTIC/CERAMIC WASTE

PLASTIK / SKART CERAMIC

MALTA MARSAXLOKK BAY PROHIBITS IMPROPER DISPOSAL OF WASTE

MALTA Marsaxlokk BAY jipprojbixxi rimi mhux xieraq TA 'SKART

The following item may be disposed of in this container:


- Plastic waste will be compacted where possible and disposed of in this container
- All plastic containers will be emptied & rinsed before disposal, no free fluids or residue.
- Ceramics

Il- punt li ġej jista 'jinbiegħ f'dan kontenitur:

- Plastik Iskart se jkun kumpatt fejn possibbli u jintrema dan il-kontenitur
- Il-kontenituri kollha tal-plastik se jitbattlu & mlaħalħa qabel ir-rimi , l-ebda fluwidi ħielsa jew fdal .
- Ċeramika

In the event of a spill of this waste contact the FSU Superintendent / Bosun

Fil -każ ta ' tixrid ta' dan il-kuntatt skart tal- FSU Suprintendent / Bosun

 BUMIARMADA	Floating Gas Solutions	ISM ☑	Page
	Waste Management Plan	SECE ☑	34 of 43
	Document No:	Revision R2	Date: 19 Jul 2016
	OPS-MALT-ALM-ENV-PLN-0002		

HAZARDOUS WASTE

SKART PERIKOLUŻ

MALTA MARSAXLOKK BAY PROHIBITS IMPROPER DISPOSAL OF WASTE

MALTA Marsaxlokk BAY jipprojbixxi rimi mhux xieraq TA 'SKART

The following item may be disposed of in this container:


- Demulsifiers / surfactants
- Corrosive materials / acids / caustics
- Batteries – Lead – acid / Ni-cad / Lithium etc
- Fluorescent strips / produced sands / sludge / solids
- Non-aqueous fluids drilling muds / sludge
- Sharps / needles / syringes / bins
- Bandages / dressings / swabs / gauze
- Material contaminated with bodily fluids

Il- punt li ġej jista 'jinbiegħ f'dan kontenitur:

- Demulsifiers / Surfactants
- Materjali korrużivi / Aċidi / Caustics
- Batteriji - ċomb - aċidu / Ni- CAD / Lithium eċċ
- Strixxi fluworexxenti / Ramel Prodott / Ħama / Solidi
- Tajn fluwidi tat-ħaffir mhux milwiema / Ħama
- Sharps / Labar / Siringi / Bins
- Faxex / dressings / tampuni / Garża
- Materjal kontaminati bil fluwidi tal-ġisem

In the event of a spill of this waste contact the FSU Superintendent / Bosun

Fil -każ ta ' tixrid ta' dan il-kuntatt skart tal- FSU Suprintendent / Bosun

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	35 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

OILY WASTE

ISKART żejtnija

MALTA MARSAXLOKK BAY PROHIBITS IMPROPER DISPOSAL OF WASTE

MALTA Marsaxlokk BAY jipprojbixxi rimi mhux xieraq TA 'SKART

The following item may be disposed of in this container:


- Used oily filters / rags / absorbent materials
- Used oily debris / sludge
- Oil contaminated containers.

Il- punt li ġej jista 'jinbiegħ f'dan kontenitur:

- Filtri / Ċraret / materjali assorbenti Użati żejtnija
- Użati żejtnija debris / Ħama
- Żejt ikkontaminat kontenituri .

In the event of a spill of this waste contact the FSU Superintendent / Bosun

Fil -każ ta ' tixrid ta' dan il-kuntatt skart tal- FSU Suprintendent / Bosun

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	36 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

METAL WASTE

Skart tal-metall

MALTA MARSAXLOKK BAY PROHIBITS IMPROPER DISPOSAL OF WASTE

MALTA Marsaxlokk BAY jipprojbixxi rimi mhux xieraq TA 'SKART

The following item may be disposed of in this container:


- Compressor / gas cylinders
- Chains / wires / pipes / casings
- Aerosol cans
- Uncontaminated air & water filters
- Metal containers with no free liquids or residues (empty & rinsed)

Il- punt li ġej jista 'jinbiegħ f'dan kontenitur:

- Kumpressur / ċilindri tal-gass
- Ktajjen / Wires / Pajpijiet / Casings
- Bottijiet Aerosol
- Arja & ilma filtri mhux kontaminati
- Kontenituri tal-metall bl-ebda likwidi hielsa jew residwi (vojta & mlaħalha)

In the event of a spill of this waste contact the FSU Superintendent / Bosun

Fil -każ ta ' tixrid ta' dan il-kuntatt skart tal- FSU Suprintendent / Bosun

 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	37 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

PAPER WASTE

SKART PAPER

MALTA MARSAXLOKK BAY PROHIBITS IMPROPER DISPOSAL OF WASTE

MALTA Marsaxlokk BAY jipprojbixxi rimi mhux xieraq TA 'SKART

The following item may be disposed of in this container:


- Paper
- Cardboard
- Cartons
- Uncontaminated Rags/Cloths

Il- punt li ġej jista 'jinbiegħ f'dan kontenitur :

- Paper
- Kartun
- Kartun
- mhux ikkontaminat Ċraret / Drappijiet

In the event of a spill of this waste contact the FSU Superintendent / Bosun

Fil -każ ta ' tixrid ta' dan il-kuntatt skart tal- FSU Suprintendent / Bosun

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	38 of 43
	Document No:	Revision	Date:
	OPS-MALT-ALM-ENV-PLN-0002	R2	19 Jul 2016


APPENDIX I PROPERTIES OF WASTE WHICH RENDER IT HAZARDOUS

Cat	Description	Details
E1	Explosive	Substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.
E2	Oxidizing	Substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.
E3A	Highly flammable	<ul style="list-style-type: none"> liquid substances & preparations having a flash point below 21°C (including extremely flammable liquids), or substances & preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or solid substances & preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or gaseous substances & preparations which are flammable in air at normal pressure, or Substances & preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.
E3B	Flammable	Liquid substances & preparations having a flash point equal to or greater than 21°C and less than or equal to 55°C.
E4	Irritant	Non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.
E5	Harmful	Substances & preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
E6	Toxic	Substances & preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.
E7	Carcinogenic	Substances & preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.
E8	Corrosive	Substances & preparations which may destroy living tissue on contact.
E 9	Infectious	Substances & preparations containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.
E10	Toxic for reproduction	Substances & preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.
E11	Mutagenic	Substances & preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.
E12		Waste which releases toxic or very toxic gases in contact with water, air or an acid.
E13(*)	Sensitizing	<p>Substances & preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitization such that on further exposure to the substance or preparation, characteristic adverse effects are produced.</p> <p>(*) As far as testing methods are available.</p>
E14	Ecotoxic	Waste which presents or may present immediate or delayed risks for one or more sectors of the environment.
E15		Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

Note:** Attribution of the hazardous properties 'toxic' (and 'very toxic'), 'harmful', 'corrosive', 'irritant', 'carcinogenic', 'toxic to reproduction', 'mutagenic' and 'eco-toxic' is made on the basis of the criteria laid down by Annex VI, to Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances ⁽¹⁾.


Note*:** Where relevant the limit values listed in Annex II and III to Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations ⁽²⁾ shall apply.

Test methods: The methods to be used are described in Annex V to Directive 67/548/EEC and in other relevant CEN-notes.

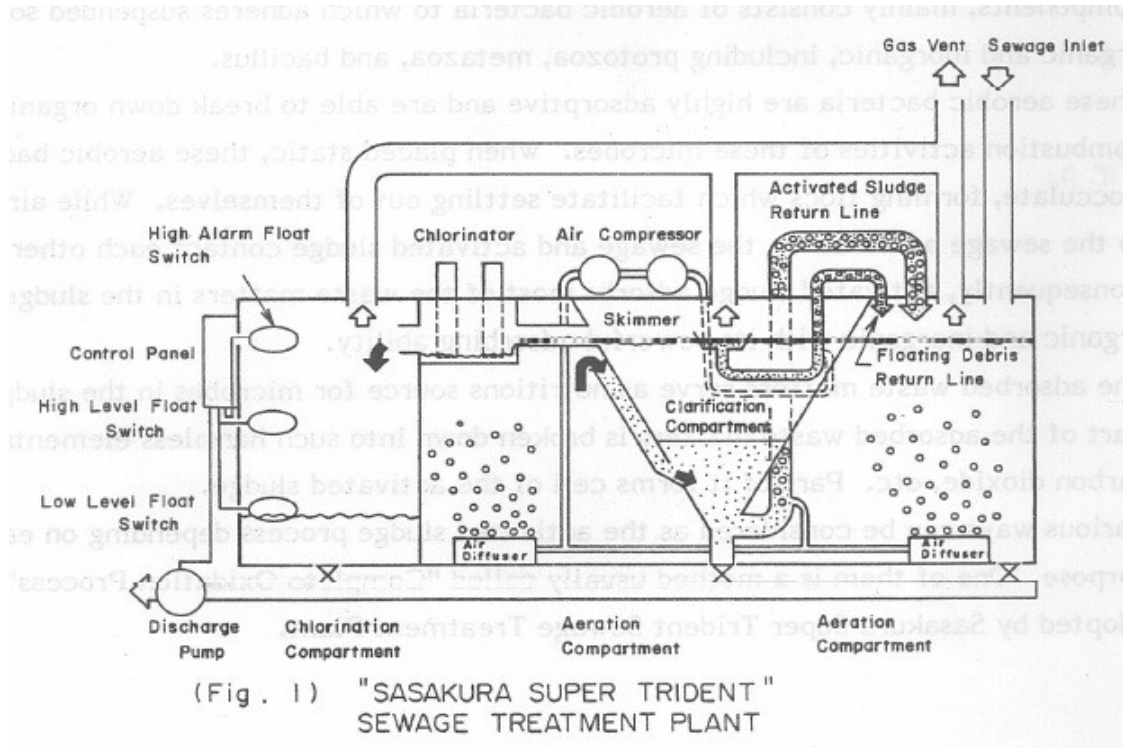
 BUMIARMADA	Floating Gas Solutions	ISM ☑	Page
	Waste Management Plan	SECE ☑	39 of 43
	Document No:	Revision	Date:
	OPS-MALT-ALM-ENV-PLN-0002	R2	19 Jul 2016


APPENDIX J WASTE ELECTRICAL & ELECTRONIC EQUIPMENT

1. Temperature exchange equipment;
2. Screen, monitors, and equipment containing screens having a surface greater than 100cm²;
3. Lamps;
4. Large equipment (any external dimensions more than 50 cm) including but not limited to:
Domestic appliances: IT and telecommunication equipment; consumer equipment; luminaries; equipment reproducing sound or images, musical equipment; electrical and electronic tools; toys, leisure and sport equipment; medical devices; monitoring and control instruments; automatic dispensers; equipment for the generation of electrical currents. This category does not include equipment included in categories 1 to 3.
5. Small equipment (no external dimension more than 50 cm) including, but not limited to:
Domestic appliances: consumer equipment; luminaries; equipment reproducing sound or images, musical equipment; electrical and electronic tools; toys, leisure and sport equipment; medical devices; monitoring and control instruments; automatic dispensers; equipment for the generation of electrical currents. This category does not include equipment included in categories 1 to 3 & 6.
6. Small IT and telecommunication equipment (no external dimension more than 50 cm)


 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	41 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX L SEWAGE TREATMENT PLANT




 BUMIARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	42 of 43
	Document No: OPS-MALT-ALM-ENV-PLN-0002	Revision R2	Date: 19 Jul 2016

APPENDIX M WASTE DISPOSAL REGISTER

WASTE DISPOSAL REGISTER						 BUMIARMADA			
INSTALLATION NAME:		ARMADA LNG MEDITERRANA			IMO NO:				
REGISTER									
Waste Categories: <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> A. Plastic (including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags, biodegradable bags and incinerator ashes from plastic products). Reception facilities only. B. Food wastes C. Domestic wastes (e.g. paper products, rags, glass, metal, bottles, crockery, etc.) D. Cooking oil E. Incinerator ash (except from plastic products which may contain toxic or heavy metal residues) </td> <td style="vertical-align: top; width: 50%;"> F. Operational wastes G. Cargo residues H. Animal carcass(es) I. Fishing Gear: Ia – Nets, surface; Ib – Nets, midwater or bottom; Ic – Longline; Id – Synthetic line and netting scraps; Ie – Pots and traps; If – Dredges; Ig: - Miscellaneous </td> </tr> </table>								A. Plastic (including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags, biodegradable bags and incinerator ashes from plastic products). Reception facilities only. B. Food wastes C. Domestic wastes (e.g. paper products, rags, glass, metal, bottles, crockery, etc.) D. Cooking oil E. Incinerator ash (except from plastic products which may contain toxic or heavy metal residues)	F. Operational wastes G. Cargo residues H. Animal carcass(es) I. Fishing Gear: Ia – Nets, surface; Ib – Nets, midwater or bottom; Ic – Longline; Id – Synthetic line and netting scraps; Ie – Pots and traps; If – Dredges; Ig: - Miscellaneous
A. Plastic (including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags, biodegradable bags and incinerator ashes from plastic products). Reception facilities only. B. Food wastes C. Domestic wastes (e.g. paper products, rags, glass, metal, bottles, crockery, etc.) D. Cooking oil E. Incinerator ash (except from plastic products which may contain toxic or heavy metal residues)	F. Operational wastes G. Cargo residues H. Animal carcass(es) I. Fishing Gear: Ia – Nets, surface; Ib – Nets, midwater or bottom; Ic – Longline; Id – Synthetic line and netting scraps; Ie – Pots and traps; If – Dredges; Ig: - Miscellaneous								
Date & Time	Position of the ship (latitude/longitude/port) / Remarks (e.g. accidental loss; water depth if known; cargo residues; start/stop position)	Category	Estimated Amount Discharged		Estimated Amount Incinerated (m³)	Certification/Signature			
			Into sea (m³)	To reception facilities or to other ship (m³)					
* File receipts & certificates for disposal with this log. Note: This form is based on the IMO required Record of Garbage Discharge.			PIC (OIM/MASTER) SIGNATURE			DATE 			

CBGF-ENV-FRM-0002_R0

 BUMI ARMADA	Floating Gas Solutions	ISM <input checked="" type="checkbox"/>	Page
	Waste Management Plan	SECE <input checked="" type="checkbox"/>	43 of 43
	Document No:	Revision	Date:
	OPS-MALT-ALM-ENV-PLN-0002	R2	19 Jul 2016

APPENDIX N COMPLAINT FORM FOR PORT INADEQUACY

COMPLAINT FORM			
TO: Harbour Master, Transport Malta Ports & Yachting Directorate Xatt L-Ghassara ta' L-Gheneb Marsa MRS 1917 e-mail : info@transport.gov.mt			
Part A: DETAILS			
NAME OF SHIP:	ARMADA LNG MEDITERRANA	IMO NUMBER & CALL SIGN:	
BERTH:		DATE OF ARRIVAL IN PORT:	
OWNER, OPERATOR OR AGENT:	AFGSML	NUMBER OF POB:	
AMOUNT & TYPE OF WASTE TO BE DELIVERED TO THE WASTE RECEPTION FACILITIES:			
Part B: PROBLEMS			
Special problem such as: Unnecessary delay, insufficient waste reception facilities, not technically possible to use waste reception facilities, or other. Please list and comment on them:			
Part C: REMARKS			
ACKNOWLEDGEMENT			
	NAME	SIGNATURE	DATE
COMPLAINANT			
HARBOUR MASTER			