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	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
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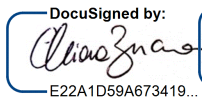
EMERGENZA GAS

INCREMENTO DI CAPACITÀ DI RIGASSIFICAZIONE (DL 17.05.2022 , N. 50)
FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI

OFFSHORE

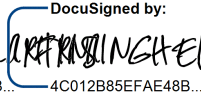
Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore

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DARIO

Rev.	Descrizione	Elaborato	Verificato	Approvato Autorizzato	Data
0	Emissione finale	C. Zucconi	M. Pompili	D. Frisinghelli	27/05/2024
A	Emesso per Approvazione	C. Zucconi	M. Pompili	D. Frisinghelli	10/05/2024

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1 INTRODUZIONE

Il Progetto FSRU Ravenna riguarda le opere necessarie all'ormeggio di un mezzo navale tipo FSRU (Floating Storage and Regasification Unit) in corrispondenza della piattaforma offshore esistente denominata Petra posta a circa 8,5 km a largo di Punta Marina (Ravenna) e al trasferimento del gas naturale fino al punto di collegamento con la Rete Nazionale Gasdotti in corrispondenza dell'impianto Nodo di Ravenna di Snam Rete Gas.

In particolare, il Progetto include i seguenti componenti (Rif. Figura 1):

1. Adeguamento e ampliamento della esistente piattaforma Petra inclusiva di tutte le opere impiantistiche necessarie allo scarico del gas naturale ed il suo convogliamento, tramite pipeline DN 650 (26") – DP 100 barg, nella condotta sottomarina (c.d. sealine).
2. Una diga frangiflutti posta a est della piattaforma di ormeggio.
3. Una condotta sottomarina (c.d. sealine) DN 650 (26") – DP 100 barg lunga circa 8,5 km, per collegare la piattaforma Petra ed il punto di arrivo a terra posto in corrispondenza dell'area impianto denominata ex-SAROM situata a Punta Marina a ridosso della linea di costa, inclusiva della realizzazione del microtunnel costiero e della posa del cavo a fibra ottica.
4. Un tratto di condotta a terra DN 650 (26") – DP 100 barg lunga circa 2,5 km tra l'area ex-SAROM e l'impianto trappole previsto all'interno dell'area impianto PDE a Punta Marina.
5. Il tratto di condotta a terra DN 900 (36") – DP 75 barg lunga circa 31,5 km tra l'impianto di filtraggio, misura e regolazione (PDE) di Punta Marina e l'impianto trappole e collegamento alla Rete Nazionale Gasdotti presso il Nodo di Ravenna.

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Figura 1-1 Inquadramento geografico delle opere in progetto

1.1 SCOPO E CAMPO DI APPLICAZIONE

La presente nota tecnica descrive le modalità di gestione delle emissioni in atmosfera generate dalle attività offshore.

2 DEFINIZIONI ED ABBREVIAZIONI

2.1 DEFINIZIONI

Termine	Definizione
Committente	Snam Rete Gas S.p.A.
Appaltatore	Il Raggruppamento Temporaneo di Imprese (RTI) costituito da: Saipem S.p.A. (Mandataria) Micoperi S.r.l. (Mandante) Rosetti Marino S.p.A. (Mandante)
Direzione dei Lavori	Enereco S.p.A. (abbreviato DL)
Contratto	L'accordo Contrattuale concordato e firmato tra la COMMITTENTE e l'APPALTATORE
Progetto	FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI
MARPOL	Maritime Pollution

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	MARPOL 73/78 - Convenzione Internazionale per la Prevenzione dell'Inquinamento causato da navi
--	--

2.2 ABBREVIAZIONI

CA	Contract Award
D.lgs.	Decreto Legislativo
DN	Diametro Nominale
FOC	Cavo di fibra ottica
FSRU	Unità galleggianti di stoccaggio e rigassificazione (Floating Storage and Regasification Units)
HSE	Health, Safety, Environment
ISO	International Organization for Standardization
MS	Management System
MT	Micro Tunnel
PDCA	"Plan-Do-Check-Act" Deming Cycle
POA	Piano Operativo Ambientale
POS	Piano Operativo di Sicurezza
RA	Ravenna
RTI	Raggruppamento Temporaneo di Impresa
SGA	Sistema di Gestione Ambientale
SIC	Siti di Interesse Comunitario
SOW	Scope of Work (scopo del lavoro dell'IMPRESA AFFIDATARIA)
SRG	Snam Rete Gas
ZPS	Zone di Protezione Speciale
ZSC	Zone Speciali di Conservazione

3 DESCRIZIONE DELL'AREA INTERESSATA E DELLE ATTIVITÀ OFFSHORE

Il tracciato del progetto nella sua parte offshore non insiste su aree soggette a tutela come Riserve e Parchi Naturali, Zone Classificate o Protette dalla Normativa Nazionale (L. 394/1991) e/o Comunitaria (Siti della Rete Natura 2000).

Il fondale marino del tratto di mare interessato dalle attività di progetto non è caratterizzato dalla presenza di elementi di sensibilità con riferimento agli habitat bentonici (l'area di progetto ricade in una zona con

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fondi mobili caratteristici dell'Adriatico Settentrionale ed in particolare nella Biocenosi dei Fanghi Terrigeni Costieri).

Nello scopo del lavoro della scrivente società Saipem S.p.A rientrano le attività relative alla posa della nuova condotta sottomarina (c.d. sealine) DN 650 (26") – DP 100 barg lunga circa 8,5 km, per collegare la piattaforma Petra ed il punto di arrivo a terra posto in corrispondenza dell'area impianto denominata ex-SAROM situata a Punta Marina a ridosso della linea di costa inclusiva della realizzazione del microtunnel costiero e della posa del cavo a fibra ottica.

4 INTERAZIONI TRA IL PROGETTO E IL FATTORE AMBIENTALE

In considerazione delle diverse attività previste per la realizzazione delle opere offshore, si ritiene che le interazioni tra il progetto e lo stato di qualità dell'aria riguardino unicamente le emissioni di inquinanti gassosi in atmosfera dai motori dei mezzi navali impiegati.

Dalle valutazioni riportate nello Studio Ambientale (fornito alle autorità competenti nell'ambito del procedimento autorizzativo delle opere in progetto) la potenziale incidenza delle emissioni da mezzi navali in fase di cantiere sul fattore ambientale è stata valutata come non significativa/trascurabile, in considerazione dell'ubicazione ad una distanza minima di oltre 1 km dalla costa (non si ritiene che i ricettori sulla costa, vista anche la natura temporanea delle attività, possano subire interferenze significative).

Saranno adottate quindi le misure di mitigazione specifiche previste dall'Annesso VI della Convenzione Internazionale per la Prevenzione dell'Inquinamento causato da Navi (MARPOL), che riguardano principalmente attività di controllo e manutenzione degli impianti presenti a bordo e l'utilizzo di carburante con contenuto di zolfo entro 0.50% m/m. All'ormeggio o all'ancora in un porto Unione Europea il contenuto massimo di zolfo di qualsiasi carburante utilizzato non deve superare lo 0,10% m/m (Directive (EU) 2016/802 e MARPOL Ann. VI Reg. 14).

Si precisa che i mezzi navali impiegati nelle operazioni rispetteranno i requisiti dell'allegato IV della MARPOL e, laddove applicabile, saranno dotati di certificazione IAPP (International Air Pollution Prevention).

5 ELENCO MEZZI PRINCIPALI

Mezzo	Company	Tipo di vessel	Riferimento Certificato IAPP
CASTORO 10	SAIPEM	Nave posatubi [SWLB – Shallow Water pipe Lay Barge]	Rina No. 82960 IMO No. 7503166 Certificate No. 82960-R048-003
ANGELO B	ITALTEAM SHIPPING	Draga GHD	Rina No. 65900 IMO No. 8515673 Certificate No. 65900-V049-003
GIOACCHINO BACHETO	ITALTEAM SHIPPING	Draga GHD	Rina No. 63587 IMO No. 8942955 Certificate No. 63587-R016-008

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Mezzo	Company	Tipo di vessel	Riferimento Certificato IAPP
GOLIA	SIDRA	Motopontone	Not Applicable

5.1 CARATTERISTICHE TECNICHE DEI MEZZI NAVALI

Nome nave	CASTORO 10 (ID #1)
Tipo	PIPE LAYING / TRENCHING BARGE
Anno di costruzione	1976
Bandiera	BAHAMAS
Lunghezza	139 m
Larghezza	35 m
Altezza	26.365 m
PoB Capacity	Max 200 persone
Qualifiche professionali presenti	Equipaggio marittimo Equipaggio tecnico Altro personale



Il vessel utilizza un sistema integrato di gestione della sicurezza e ambiente, in conformità con le procedure SAIPEM e con tutte le leggi applicabili e gli standard internazionali, in particolare con

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l'International Safety Management Code e la Convenzione Internazionale per la Prevenzione dell'Inquinamento causato da Navi (MARPOL).

Nome nave	GOLIA (ID #11)
Tipo	MOTOPONTONE
Anno di costruzione	2008
Bandiera	ITALIA
Lunghezza	60 m
Larghezza	20 m
Altezza	4 m
PoB Capacity	16



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Nome nave	ANGELO B (ID #12)
Tipo	DRAGA (GHD#1)
Anno di costruzione	1986
Bandiera	ITALIA
Lunghezza	73.07 m
Larghezza	14 m
Altezza	-
PoB Capacity	12



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Nome nave	GIOACCHINO BACHETO (ID #13)
Tipo	DRAGA #2 (GHD #2)
Anno di costruzione	1982
Bandiera	CYPRUS
Lunghezza	66.45 m
Larghezza	12.2 m
Altezza	-
PoB Capacity	12



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6 ALLEGATO 1 – CERTIFICATO IAPP CASTORO 10

SHORT TERM
INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No. 82960-R048-003

Note: This Certificate shall be supplemented by a Record of Construction and Equipment

issued under the provisions of the Protocol of 1997 as amended, to amend the INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention")

under the authority of the Government of the

The Commonwealth of the Bahamas

by

RINA SERVICES S.p.A.

RINA
RINA No. 82960

Name of ship	Distinctive number or letters	Gross tonnage
CASTORO 10	C6DD9	10487

Port of registry	IMO Number ¹
NASSAU	7503166

THIS IS TO CERTIFY:

- that the ship has been surveyed in accordance with Regulation 5 of Annex VI of the International Convention; and
- that the survey shows that the equipment, systems, fittings, arrangement and materials fully comply with the applicable requirements of Annex VI of the Convention.

¹ In accordance with the IMO Ship Identification Number Scheme, adopted by the Organization by resolution A.1117(30).

UTN: SQFTCA5YFGZTU0E

Form IAPPC_BAH - 11/2023 - I.S

This certificate consists of 5 pages

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IMO No. 7503166 Name of ship CASTORO 10 No. 82960-R048-003 page 2 / 5

Completion date of survey on which this Certificate is based:² 20 May 2024

This Certificate is valid until:³ 20 October 2024

subject to surveys in accordance with Regulation 5 of Annex VI of the Convention.

Issued at: Genova on 20 May 2024





This is an electronically signed document in accordance with IMO FAL.5/Circ.39 and does not require a handwritten signature. Validation and authentication of the paper printout may be obtained from <https://ecertificate.rina.org>

Pascale Alessio

RINA SERVICES S.p.A.

² Format date (dd/mm/yyyy)

³ Insert the date of expiry as specified by the Administration in accordance with regulation 9.1 of Annex VI of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 2.1.3 of Annex VI of the Convention, unless amended in accordance with regulation 9.8 of Annex VI of the Convention.

UTN: SQFTCA5YFGZTU0E

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ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by Regulation 5 of Annex VI of the Convention the ship was found to comply with the relevant provisions of the Convention.

Annual survey	Signature and seal
Place	
Date	
Annual survey / Intermediate survey (*)	Signature and seal
Place	
Date	
Annual survey / Intermediate survey (*)	Signature and seal
Place	
Date	
Annual survey	Signature and seal
Place	
Date	

(*) Delete as appropriate


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Annual/Intermediate Survey in accordance with Regulation 9.8.3

THIS IS TO CERTIFY that, at an Annual / Intermediate (*) in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.

Place	Signature and seal
Date	

Endorsement to extend the certificate if valid for less than 5 years where regulation 9.3 applies

This ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.3 of Annex VI of the Convention, be accepted as valid until _____

Place	Signature and seal
Date	

Endorsement where the renewal survey has been completed and regulation 9.4 applies

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.4 of Annex VI of the Convention, be accepted as valid until _____

Place	Signature and seal
Date	

(*) Delete as appropriate


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Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where regulation 9.5 or 9.6 applies

This certificate shall, in accordance with regulation 9.5 / 9.6 (*) of Annex VI of the Convention, be accepted as valid until

Place	Signature and seal
Date	

Endorsement for advancement of anniversary date where regulation 9.8 applies

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is

Place	Signature and seal
Date	

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is

Place	Signature and seal
Date	

(*) Delete as appropriate


 UTN: SOFTCAS5YFGZTU0E
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7 ALLEGATO 2 – CERTIFICATO IAPP ANGELO B

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No. 65900-V049-003

Note: This Certificate shall be supplemented by a Record of Construction and Equipment



RINA No. 65900

issued under the provisions of the Protocol of 1997 as amended
by resolution MEPC.176(58) in 2008, to amend the
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973,
as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention")

under the authority of the Government of the

Republic of Cyprus
by
RINA SERVICES S.p.A.

Name of ship	Distinctive number or letters	Gross tonnage
ANGELO B	5BKP4	1469

Port of registry	IMO Number ¹
LIMASSOL	8515673

THIS IS TO CERTIFY:

- that the ship has been surveyed in accordance with Regulation 5 of Annex VI of the International Convention; and
- that the survey shows that the equipment, systems, fittings, arrangement and materials fully comply with the applicable requirements of Annex VI of the Convention.

Completion date of the survey on which this certificate is based: **16 June 2020**



¹ In accordance with the IMO Ship Identification Number Scheme, adopted by the Organization by resolution A.600(15).

Form IAPPC - 04/2018 - LS

This certificate consists of 5 pages

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IMO No. 8515673 Name of ship ANGELO B No. 65900-V049-003 pages 2 / 5

This Certificate is valid until: **31 May 2025**¹

subject to surveys in accordance with Regulation 5 of Annex VI of the Convention.

Issued at: **VENEZIA** on **24 January 2022**




 Ballarin Lino
RINA SERVICES S.p.A.

¹ Insert the date of expiry as specified by the Administration in accordance with regulation 9(1) of Annex VI of the Convention.

Form IAPPC - 04/2018 - LS

RINA No. 65900

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IMO No. 8515673 Name of ship ANGELO B No. 65900-V049-003 pages 3 / 5

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by Regulation 5 of Annex VI of the Convention the ship was found to comply with the relevant provisions of the Convention.

Annual survey	Signature and seal
Place	 Hauskrecht Josip Marine Surveyor 334
Date	
Annual survey / Intermediate survey (*)	
Place ZADAR	 Giuseppe Staino Marine Surveyor RINA Services S.p.A. 34418
Date 04/05/2022	
Annual survey / Intermediate survey (*)	
Place RAVENNA	
Date 04/05/2023	
Annual survey	
Place	
Date	
Annual survey	

(*) Delete as appropriate

Form IAPPC - 04/2018 - L5


 RINA No. 65900

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 19 di 34	Rev. 0

IMO No. 8515673 Name of ship ANGELO B No. 65900-V049-003 pages 4 / 5

Annual/Intermediate Survey in accordance with Regulation 9.8.3

THIS IS TO CERTIFY that, at an Annual / Intermediate (*) in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.

Place	Signature and seal
Date	

Endorsement to extend the certificate if valid for less than 5 years where regulation 9.3 applies

This ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.3 of Annex VI of the Convention, be accepted as valid until _____

Place	Signature and seal
Date	

Endorsement where the renewal survey has been completed and regulation 9.4 applies

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.4 of Annex VI of the Convention, be accepted as valid until _____

Place	Signature and seal
Date	

(*) Delete as appropriate


 RINA No. 65900

Form IAPPC - 04/2018 - LS

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 20 di 34	Rev. 0

IMO No. 8515673 Name of ship: ANGELO B No. 65900-V049-003 pages 5 / 5

Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where regulation 9.5 or 9.6 applies

This certificate shall, in accordance with regulation 9.5 / 9.6 (*) of Annex V1 of the Convention, be accepted as valid until _____

Place	Signature and seal
Date	

Endorsement for advancement of anniversary date where regulation 9.8 applies

In accordance with regulation 9.8 of Annex 1 of the Convention, the new anniversary date is _____

Place	Signature and seal
Date	

In accordance with regulation 9.8 of Annex 1 of the Convention, the new anniversary date is _____

Place	Signature and seal
Date	

(*) Delete as appropriate

Form IAPPC - 04/2018 - LS


 RINA No. 65900

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 21 di 34	Rev. 0

SUPPLEMENT TO THE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No. 65900-V049-003 - R

RECORD OF CONSTRUCTION AND EQUIPMENT

Notes

- 1 This record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times
- 2 If the language of the original Record is not English, French or Spanish, the text shall include a translation into one of these languages
- 3 Entries in boxes shall be made by inserting either a cross (x) for the answer "yes" and "applicable" or a dash (-) for the answer "no" and "not applicable" as appropriate.
- 4 Regulation mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1 Particulars of ship 1.1 Name of ship 1.2 Distinctive number or letters 1.3 Date on which keel was laid or ship was at similar stage of construction 1.4 Length (L) metres ¹ 2 Control of emission from ships 2.1 Ozone-depleting substances (regulation 12) 2.1.1 The following fire-extinguishing systems, other systems and equipment containing ozone depleting substances, other than hydro-chlorofluorocarbons, installed before 19 May 2005 may continue in service: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">System or equipment</th> <th style="width: 30%;">Location on board</th> <th style="width: 30%;">Substance</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> 2.1.2 The following systems containing hydro-chlorofluorocarbons(HCFCs) installed before 1 January 2020 may continue in service <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">System or equipment</th> <th style="width: 30%;">Location on board</th> <th style="width: 30%;">Substance</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	System or equipment	Location on board	Substance				System or equipment	Location on board	Substance				RINA No. 65900 ANGELO B 5BKPA 1985
System or equipment	Location on board	Substance											
System or equipment	Location on board	Substance											

RINA

¹ Completed only in respect of ships constructed on or after 1 January 2016, that are specially designed, and used solely, for recreational purposes and to which, in accordance with regulation 13.5.2.1 or regulation 13.5.2.3, the NOx emission limit as given by regulation 13.5.1.1 will not apply.

Form IAPPC_Sup - 03/2020 - LS

This certificate consists of 4 pages

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 22 di 34	Rev. 0

IMO No. 8515673 Name of ship ANGELO B No. 65900-V049-003 - R pages 2 / 4

2.2 Nitrogen Oxides (NOx) (regulation 13)

2.2.1 The following marine diesel engines installed on this ship are in accordance with the requirements of regulation 13, as indicated:

Applicable regulation of MARPOL Annex VI (NTC=NOX Technical Code 2008) (AM = Approved Method)	Engine #1	Engine #2	Engine #3	Engine #4	Engine #5	Engine #6
Manufacturer and model	Cummins Engine Company, Inc - KTA50-M2	Cummins Engine Company, Inc - KTA50-M2				
Serial number	33159910	33158596				
Use (applicable application cycle(s) NTC 3.2) (*)	E3	E3				
Rated Power (kW) (NTC 1.3.11)	1194	1194				
Rated speed (rpm) (NTC 1.3.12)	1800	1800				
Identical engine installed >= 1/1/2000 exempted by 13.1.1.2	☐	☐	☐	☐	☐	☐
Identical engine installation date (dd/mm/yyyy) as per 13.1.1.2	-	-				
Date of major conversion (dd/mm/yyyy)	Reg. 13.2.1.1 & 13.2.2 04/08/2006	Reg. 13.2.1.2 & 13.2.3 -	Reg. 13.2.1.3 & 13.2.3 -			
Tier I	Reg. 13.3 ☒	Reg. 13.3 ☒	Reg. 13.3 ☐	Reg. 13.3 ☐	Reg. 13.3 ☐	Reg. 13.3 ☐
	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐
	Reg. 13.2.3.1 ☐	Reg. 13.2.3.1 ☐	Reg. 13.2.3.1 ☐	Reg. 13.2.3.1 ☐	Reg. 13.2.3.1 ☐	Reg. 13.2.3.1 ☐
	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐
Tier II	Reg. 13.4 ☐	Reg. 13.4 ☐	Reg. 13.4 ☐	Reg. 13.4 ☐	Reg. 13.4 ☐	Reg. 13.4 ☐
	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐
	Reg. 13.2.2 (Tier III not possible) ☐	Reg. 13.2.2 (Tier III not possible) ☐	Reg. 13.2.2 (Tier III not possible) ☐	Reg. 13.2.2 (Tier III not possible) ☐	Reg. 13.2.2 (Tier III not possible) ☐	Reg. 13.2.2 (Tier III not possible) ☐
	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐
	Reg. 13.5.2 (Exemptions) ☐	Reg. 13.5.2 (Exemptions) ☐	Reg. 13.5.2 (Exemptions) ☐	Reg. 13.5.2 (Exemptions) ☐	Reg. 13.5.2 (Exemptions) ☐	Reg. 13.5.2 (Exemptions) ☐
	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐
Tier III (ECA-NOx only)	Reg. 13.5.1.1 ☐	Reg. 13.5.1.1 ☐	Reg. 13.5.1.1 ☐	Reg. 13.5.1.1 ☐	Reg. 13.5.1.1 ☐	Reg. 13.5.1.1 ☐
	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐	Reg. 13.2.2 ☐
	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐	Reg. 13.2.3.2 ☐
	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐	Reg. 13.7.1.2 ☐
AM(**)	Installed ☐	Installed ☐	Installed ☐	Installed ☐	Installed ☐	Installed ☐
	Not commercially available at this survey ☐	Not commercially available at this survey ☐	Not commercially available at this survey ☐	Not commercially available at this survey ☐	Not commercially available at this survey ☐	Not commercially available at this survey ☐
	Non Applicable ☐	Non Applicable ☐	Non Applicable ☐	Non Applicable ☐	Non Applicable ☐	Non Applicable ☐

2.3 Sulphur oxides (SOx) and particulate matter (regulation 14)

2.3.1 When the ship operates outside of an Emission Control Area specified in regulation 14.3, the ship uses:

2.3.1.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:
0.50% m/m, and/or ☒

2.3.1.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in in paragraph 2.6 that is at least as effective in terms of SOx emission reductions as compared to using a fuel oil with a sulphur content limit value of:
0.50% m/m, and/or ☐

2.3.2 When the ship operates inside an Emission Control Area specified in regulation 14.3, the ship uses:

2.3.2.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 23 di 34	Rev. 0

IMO No. 8515673 Name of ship ANGELO B No. 65900-VD49-003 - R pages 3 / 4

0.10% m/m and/or ☒

2.3.2.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 that is at least as effective in terms of SOX emission reductions as compared to using a fuel oil with a sulphur content limit value of:

0.10% m/m and/or ☐

2.3.3 For a ship without an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6, the sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m as documented by bunker delivery notes. ☒

2.4 Volatile organic compounds (VOCs) (regulation 15)

2.4.1 The tanker has a vapor collection system installed and approved in accordance with MSC/Circ.585 ☐

2.4.1.1 For a tanker carrying crude oil, there is an approved VOC Management Plan ☐

2.4.1.2 VOC Management Plan approval references:

2.5 Shipboard incineration (regulation 16)
The ship has an incinerator:

2.5.1 installed on or after 1 January 2000 which complies with:

2.5.1.1 resolution MEPC.76(40) as amended² ☐

2.5.1.2 resolution MEPC.244(66) ☐

2.5.2 installed before 1 January 2000 which complies with:

2.5.2.1 resolution MEPC.59(33) as amended³ ☐

2.5.2.2 resolution MEPC.76(40) as amended² ☐

2.6 Equivalents (regulation 4)
The ship has been allowed to use the following fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex:

System or equipment	Equivalent used	Approval reference

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RINA No. 65900

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	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 24 di 34	Rev. 0

IMO No. 8515673 Name of ship ANGELO B No. 65900-V049-003 - R pages 4 / 4

THIS IS TO CERTIFY that this record is correct in all respects.

Issued at: **VENEZIA** on **24 January 2022**



 Ballarin Lino
RINA SERVICES S.p.A.

Use(*)	
E2	For constant speed marine engines for ship main propulsion, including diesel electric drive and variable pitch propeller
E3	For propeller low operated main and propeller low operated auxiliary engines
D2	For constant speed auxiliary engines
C1	For variable speed, variable load auxiliary engines, not included above

** Refer to guidelines on the approved method process (resolution MEPC.243(66))
 2 As amended by resolution MEPC.93(45)
 3 As amended by resolution MEPC.92(45)

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 RINA No. 65900

	 SAIPEM  ROSETTI MARINO  MICOPERI	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 25 di 34	Rev. 0

8 ALLEGATO 3 – CERTIFICATO IAPP GIOACCHINO BACHETO

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 26 di 34	Rev. 0

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No. 63587-R016-008

Note: This Certificate shall be supplemented by a Record of Construction and Equipment



issued under the provisions of the Protocol of 1997 as amended, to amend the INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention")

RINA No. 63587

under the authority of the Government of the

Republic of Cyprus
by

RINA SERVICES S.p.A.

Name of ship	Distinctive number or letters	Gross tonnage
GIOACCHINO BACHETO	5BTS4	995
Port of registry	IMO Number *	
LIMASSOL	8942955	

THIS IS TO CERTIFY:

- 1 that the ship has been surveyed in accordance with Regulation 5 of Annex VI of the International Convention; and
- 2 that the survey shows that the equipment, systems, fittings, arrangement and materials fully comply with the applicable requirements of Annex VI of the Convention.

Completion date of the survey on which this certificate is based: **14 September 2021**

¹ In accordance with the IMO Ship Identification Number Scheme, adopted by the Organization by resolution A.117(30).



UTN: GND8U6MSWWDW3TK

Form IAPPC - 04/2022 - LS

This certificate consists of 5 pages

	 SAIPER  ROSETTI MARINO  MICOPERI	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 27 di 34	Rev. 0

IMO No. 8942955 Name of ship GIOACCHINO BACHETO

No. 63587-R016-008 pages 2 / 5

This Certificate is valid until: **24 October 2026 ***

subject to surveys in accordance with Regulation 5 of Annex VI of the Convention.

Issued at: **Agigea** on **15 September 2022**



This is an electronically signed document in accordance with IMO FAL.5/Circ.39 and does not require a handwritten signature. Validation and authentication of the paper printout may be obtained from <https://ecertificate.rina.org>

Mocanu Marius

RINA SERVICES S.p.A.

¹ Insert the date of expiry as specified by the Administration in accordance with regulation 9(1) of Annex V1 of the Convention.



UTN: 8ND8USMSWKDW3TK

Form IAPPC - 04/2022 - LS

RINA No. 63587

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 28 di 34	Rev. 0

IMO No. 8942955 Name of ship GIOACCHINO BACHETO

No. 63587-R016-008 pages 3 / 5

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by Regulation 5 of Annex VI of the Convention the ship was found to comply with the relevant provisions of the Convention.

Annual survey Place Agigea Date 15 September 2022	Signature and seal  Mocanu Marius RINA Services S.p.A. electronically signed
Annual survey Place Chioggia Date 12 January 2024	Signature and seal  Battaglia Giovanni RINA Services S.p.A. electronically signed
Annual survey / Intermediate survey (*) Place Date	Signature and seal
Annual survey Place Date	Signature and seal

(*) Delete as appropriate



UTN: GND8U6MSVKDW3TK

Form IAPPC - 04/2022 - LS

RINA No. 63587

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 29 di 34	Rev. 0

IMO No. 8942955 Name of ship GIOACCHINO BACHETO

No. 63587-R016-008 pages 4 / 5

Annual/Intermediate Survey in accordance with Regulation 9.8.3

THIS IS TO CERTIFY that, at an Annual / Intermediate (*) in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.

Place	Signature and seal
Date	

Endorsement to extend the certificate if valid for less than 5 years where regulation 9.3 applies

This ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.3 of Annex VI of the Convention, be accepted as valid until _____

Place	Signature and seal
Date	

Endorsement where the renewal survey has been completed and regulation 9.4 applies

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.4 of Annex VI of the Convention, be accepted as valid until _____

Place	Signature and seal
Date	

(*) Delete as appropriate



UTN: SDC8USMSWKDW3TK

Form IAPPC - 04/2022 - LS

RINA No. 63587

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
	TITOLO Doc. Piano di contenimento delle emissioni in atmosfera per le lavorazioni offshore	Appaltatore Doc No. 022960-SA-OF-LP-Z-02318	
	PROGETTO FSRU RAVENNA E COLLEGAMENTO ALLA RETE NAZIONALE GASDOTTI	Pag. 30 di 34	Rev. 0

IMO No. 8942955 Name of ship GIOACCHINO BACHETO

No. 63587-R016-008 pages 5 / 5

Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where regulation 9.5 or 9.6 applies

This certificate shall, in accordance with regulation 9.5 / 9.6 (*) of Annex V1 of the Convention, be accepted as valid until _____

Place	Signature and seal
Date	

Endorsement for advancement of anniversary date where regulation 9.8 applies

In accordance with regulation 9.8 of Annex 1 of the Convention, the new anniversary date is _____

Place	Signature and seal
Date	

In accordance with regulation 9.8 of Annex 1 of the Convention, the new anniversary date is _____

Place	Signature and seal
Date	

(*) Delete as appropriate



UTN: 0NDSU6MSWKDW3TK

Form IAPPC - 04/2022 - LS

RINA No. 63587

	  	COMMESSA NQR22199/L02	COD. TECNICO 2109/A
	LOCALITÀ REGIONE EMILIA ROMAGNA	Committente Doc No. NQR22199/L02-0001-ZX-E-02318	
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SUPPLEMENT TO THE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No. 63587-R016-008 - R

RECORD OF CONSTRUCTION AND EQUIPMENT

Notes	1 This record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times 2 If the language of the original Record is not English, French or Spanish, the text shall include a translation into one of these languages 3 Entries in boxes shall be made by inserting either a cross (x) for the answer "yes" and "applicable" or a dash (-) for the answer "no" and "not applicable" as appropriate. 4 Regulation mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions refer to those adopted by the International Maritime Organization.
-------	---

1 Particulars of ship	RINA No. 63587						
1.1 Name of ship	GIOACCHINO BACHETO						
1.2 Distinctive number or letters	5BTS4						
1.3 Date on which keel was laid or ship was at similar stage of construction	1982						
1.4 Length (L) metres ¹							
2 Control of emission from ships							
2.1 Ozone-depleting substances (regulation 12)							
2.1.1 The following fire-extinguishing systems, other systems and equipment containing ozone depleting substances, other than hydro-chlorofluorocarbons, installed before 19 May 2005 may continue in service:							
<table border="1"> <thead> <tr> <th>System or equipment</th> <th>Location on board</th> <th>Substance</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	System or equipment	Location on board	Substance				
System or equipment	Location on board	Substance					
2.1.2 The following systems containing hydro-chlorofluorocarbons(HCFCs) installed before 1 January 2020 may continue in service							
<table border="1"> <thead> <tr> <th>System or equipment</th> <th>Location on board</th> <th>Substance</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	System or equipment	Location on board	Substance				
System or equipment	Location on board	Substance					

¹ Completed only in respect of ships constructed on or after 1 January 2016, that are specially designed, and used solely, for recreational purposes and to which, in accordance with regulation 13.5.2.1 or regulation 13.5.2.3, the NOx emission limit as given by regulation 13.5.1.1 will not apply.



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This certificate consists of 4 pages

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2.2 Nitrogen Oxides (NOx) (regulation 13)

2.2.1 The following marine diesel engines installed on this ship are in accordance with the requirements of regulation 13, as indicated:

Applicable regulation of MARPOL Annex VI (NTC=NOX Technical Code 2008) (AM = Approved Method)	Engine #1	Engine #2	Engine #3	Engine #4	Engine #5	Engine #6
Manufacturer and model	CUMMINS KTA38-M2	CUMMINS KTA38-M2				
Serial number	33160401	33160481				
Use (applicable application cycle(s) NTC 3.2) (*)	E3	E3				
Rated Power (kW) (NTC 1.3.11)	895	895				
Rated speed (rpm) (NTC 1.3.12)	1800	1800				
Identical engine installed >= 1/1/2000 exempted by 13.1.1.2	☐	☐	☐	☐	☐	☐
Identical engine installation date (dd/mm/yyyy) as per 13.1.1.2	-	-				
Date of major conversion (dd/mm/yyyy)	Reg. 13.2.1.1 & 13.2.2	-	-			
	Reg. 13.2.1.2 & 13.2.3	-	-			
	Reg. 13.2.1.3 & 13.2.3	-	-			
Tier I	Reg. 13.3	☐	☐	☐	☐	☐
	Reg. 13.2.2	☐	☐	☐	☐	☐
	Reg. 13.2.3.1	☐	☐	☐	☐	☐
	Reg. 13.2.3.2	☐	☐	☐	☐	☐
	Reg. 13.7.1.2	☐	☐	☐	☐	☐
Tier II	Reg. 13.4	☒	☒	☐	☐	☐
	Reg. 13.2.2	☐	☐	☐	☐	☐
	Reg. 13.2.2 (Tier III not possible)	☐	☐	☐	☐	☐
	Reg. 13.2.3.2	☐	☐	☐	☐	☐
	Reg. 13.6.2 (Exemptions)	☐	☐	☐	☐	☐
Tier III (ECA-NOx only)	Reg. 13.7.1.2	☐	☐	☐	☐	☐
	Reg. 13.6.1.1	☐	☐	☐	☐	☐
	Reg. 13.2.2	☐	☐	☐	☐	☐
	Reg. 13.2.3.2	☐	☐	☐	☐	☐
AM(**)	Reg. 13.7.1.2	☐	☐	☐	☐	☐
	Installed	☐	☐	☐	☐	☐
	Not commercially available at this survey	☐	☐	☐	☐	☐
	Non Applicable	☐	☐	☐	☐	☐

2.3 Sulphur oxides (SOx) and particulate matter (regulation 14)

2.3.1 When the ship operates outside of an Emission Control Area specified in regulation 14.3, the ship uses:

2.3.1.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:

0.50% m/m, and/or

☒

2.3.1.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in in paragraph 2.6 that is at least as effective in terms of SOx emission reductions as compared to using a fuel oil with a sulphur content limit value of:

0.50% m/m, and/or

☐

2.3.2 When the ship operates inside an Emission Control Area specified in regulation 14.3, the ship uses:

2.3.2.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:



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- 0.10% m/m and/or ☒
- 2.3.2.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 that is at least as effective in terms of SOX emission reductions as compared to using a fuel oil with a sulphur content limit value of:
0.10% m/m and/or ☐
- 2.3.3 For a ship without an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6, the sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m as documented by bunker delivery notes. ☒
- 2.3.4 The ship is fitted with designated sampling point(s) in accordance with regulation 14.10 or 14.11 ☐
- 2.3.5 In accordance with regulation 14.12, the requirement for fitting or designating sampling point(s) in accordance with regulation 14.10 or 14.11 is not applicable for a fuel oil service system for a low-flashpoint fuel for combustion purposes for propulsion or operation on board the ship ☐
- 2.4 Volatile organic compounds (VOCs) (regulation 15)
- 2.4.1 The tanker has a vapor collection system installed and approved in accordance with MSC/Circ.585 ☐
- 2.4.1.1 For a tanker carrying crude oil, there is an approved VOC Management Plan ☐
- 2.4.1.2 VOC Management Plan approval references:
- 2.5 Shipboard incineration (regulation 16)
The ship has an incinerator:
- 2.5.1 installed on or after 1 January 2000 which complies with:
- 2.5.1.1 resolution MEPC.76(40) as amended* ☐
- 2.5.1.2 resolution MEPC.244(66) ☐
- 2.5.2 installed before 1 January 2000 which complies with:
- 2.5.2.1 resolution MEPC.59(33) as amended* ☐
- 2.5.2.2 resolution MEPC.76(40) as amended* ☐

2.6 Equivalents (regulation 4)

The ship has been allowed to use the following fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex:

System or equipment	Equivalent used	Approval reference



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THIS IS TO CERTIFY that this record is correct in all respects.

Issued at: Agigea

on 15 September 2022



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Mocanu Marius

RINA SERVICES S.p.A.

Use(*)	
E2	For constant speed marine engines for ship main propulsion, including diesel electric drive and variable pitch propeller
E3	For propeller law operated main and propeller law operated auxiliary engines
D2	For constant speed auxiliary engines
C1	For variable speed, variable load auxiliary engines, not included above

** Refer to guidelines on the approved method process (resolution MEPC.243(66))

2 As amended by resolution MEPC.93(45)

3 As amended by resolution MEPC.92(45)



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