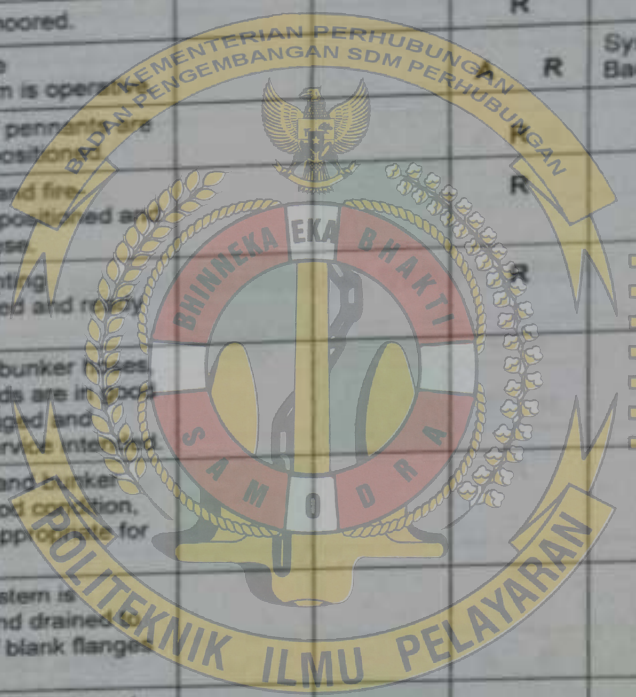


26.3.3 SHIP/SHORE SAFETY CHECK LIST

Ship's Name
 Berth
 Date of Arrival
 Port
 Time of Arrival

PART 'A' - BULK LIQUID GENERAL - PHYSICAL CHECKS

Bulk Liquid - General	Ship	Terminal	Code	Remarks
1. There is safe access between the ship and shore.			R	
2. The ship is securely moored.			R	
3. The agreed ship/shore communication system is operating.			R	System Back up system
4. Emergency towing-off pennants are correctly rigged and positioned.			R	
5. The ship's fire hoses and fire fighting equipment is positioned and ready for immediate use.			R	
6. The terminal's fire fighting equipment is positioned and ready for immediate use.			R	
7. The ship's cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended.				
8. The terminal's cargo and bunker hoses/arms are in good condition, properly rigged and appropriate for the service intended.				
9. The cargo transfer system is sufficiently isolated and drained to allow safe removal of blank flanges prior to connection.				
10. Scuppers and 'save alls' on board are effectively plugged and drip trays are in position and empty.			R	
11. Temporarily removed scupper plugs will be constantly monitored.				
12. Shore spill containment and sumps are correctly managed.			R	
13. The ship's unused cargo and bunker connections are properly secured with blank flanges fully bolted.				
14. The terminal's unused cargo and bunker connections are properly secured with blank flanges fully bolted.				
15. All cargo, ballast and bunker tank lids are closed.				
Bulk Liquid - General	Ship	Terminal	Code	Remarks



16. Sea and overboard discharge valves, when not in use, are closed and visibly secured.				
17. All external doors, ports and windows in the accommodation, stores and machinery spaces are closed. Engine room vents may be open.			R	
18. The ship's emergency fire control plans are located externally.				Location

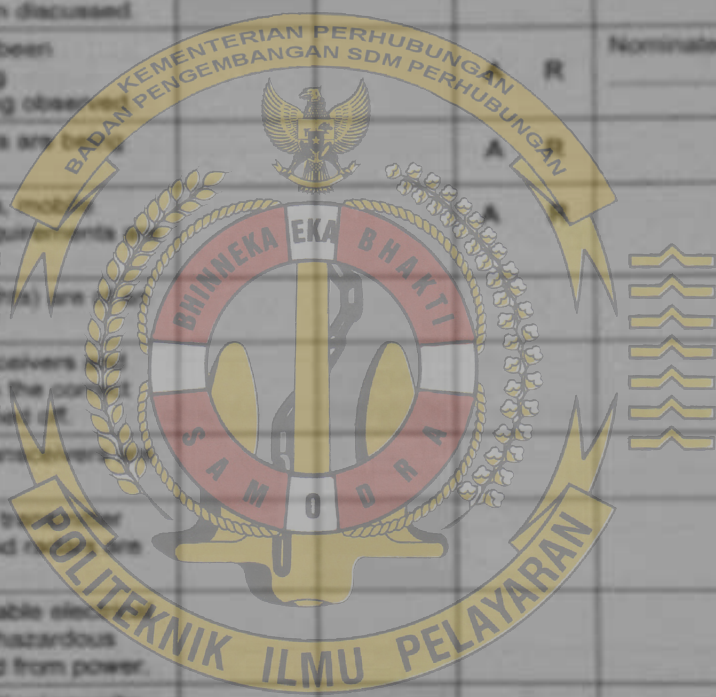
If the ship is fitted, or is required to be fitted, with an Inert Gas System (IGS) the following points should be physically checked:

Inert Gas System	Ship	Terminal	Code	Remarks
19. Fixed IGS pressure and oxygen content recorders are working.			R	
20. All cargo tank atmospheres are at positive pressure with oxygen content of 8% or less by volume.			P R	

PART 'B' – BULK LIQUID GENERAL – VERBAL VERIFICATION

Bulk Liquid - General	Ship	Terminal	Code	Remarks
21. The ship is ready to move under its own power.			P R	
22. There is an effective deck watch in attendance on board and adequate supervision of operations on the ship and in the terminal.			R	
23. There are sufficient personnel on board and ashore to deal with an emergency.			R	
24. The procedures for cargo, bunker and ballast handling have been agreed			A R	
25. The emergency signal and shutdown procedure to be used by the ship and shore have been explained and understood			A	
26. Material safety data sheets (MSDS) for the cargo transfer have been exchanged where requested.				
27. The hazards associated with toxic substances in the cargo being handled have been identified and understood.				H ₂ S Content Benzene Content
28. An International Shore Fire Connection has been provided.				
29. The agreed tank venting system will be used.			A R	Method
Bulk Liquid - General	Ship	Terminal	Code	Remarks

30. The requirements for closed operations have been agreed.			R	
31. The operation of the P/V system has been verified.				
32. Where a vapour return line is connected, operating parameters have been agreed.			A R	
33. Independent high level alarms, if fitted, are operational and have been tested.				
34. Adequate electrical insulating means are in place in the ship/shore connection.				
35. Shore lines are fitted with a non-return valve or procedures to avoid 'back filling' have been discussed.				
36. Smoking rooms have been identified and smoking requirements are being observed.			R	Nominated smoking rooms: _____
37. Naked light regulations are observed.			A	
38. Ship/shore telephones, mobile phones and pager requirements are being observed.			A	
39. Hand torches (flashlights) are of approved type.				
40. Fixed VHF/UHF transmitters AIS equipment are on the correct power mode throughout.				
41. Portable VHF/UHF transmitters of an approved type.				
42. The ship's main radio transmitter serials are earthed and receivers are switched off.				
43. Electric cables to portable electronic equipment within the hazardous area are disconnected from power.				
44. Window type air conditioning units are disconnected.				
45. Positive pressure is being maintained inside the accommodation.				
46. Measures have been taken to ensure sufficient mechanical ventilation in the pump room.			R	
47. There is provision for an emergency escape.				
48. The maximum wind and swell criteria for operations has been agreed.			A	Stop cargo at: _____ Disconnect at: _____ Unberth at: _____



Bulk Liquid - General	Ship	Terminal	Code	Remarks
49. Security protocols have been agreed between the Ship Security Officer and the Port Facility Security Officer, if appropriate.			A	

If the ship is fitted, or is required to be fitted, with an Inert Gas System (IGS) the following statements should be addressed.

Inert Gas System	Ship	Terminal	Code	Remarks
50. The IGS is fully operational and in good working order.			P	
51. Deck seals, or equivalent, are in good working order.			R	
52. Liquid levels in pressure/vacuum breakers are correct.			R	
53. The fixed and portable oxygen analysers have been calibrated and are working properly.			R	
54. All the individual tank IGS valves (if fitted) are correctly set and locked.			R	
55. All personnel in charge of cargo operations are aware that in the case of failure of the Inert Gas Plant, discharge operations should cease, and the terminal be advised.				

If the ship is fitted with a crude oil washing (COW) system, and intends to COW, the following statements should be addressed.

Crude Oil Washing	Ship	Terminal	Code	Remarks
56. The Pre-Arrival COW check list, as contained in the approved COW manual, has been satisfactorily completed.				
57. The COW check lists for use before, during and after COW, as contained in the approved COW manual, are available and being used.			R	

If the ship is planning to tank clean alongside, the following statements should be addressed.

Tank Cleaning	Ship	Terminal	Code	Remarks
58. Tank cleaning operations are planned during the ship's stay alongside the shore installation.	Yes/No*	Yes/No*		
59. If 'yes' the procedures and approvals for tank cleaning have been agreed.				
60. Permission has been granted for gas freeing operations.	Yes/No*	Yes/No*		

* Delete Yes or No as appropriate



CREW - LIST

Nama Kapal : MT PAGERUNGAN
 Bendera : INDONESIA
 Pemilik Kapal : PT PERTAMINA (PERSERO)
 IMO No : 9601663

Call Sign : J Z X D
 GRT : 14.438 Ton
 NRT : 4574 Ton
 DWT : 17.500 Ton
 Last Port : Panjang
 Voy : 22 / 02 / X / 2016

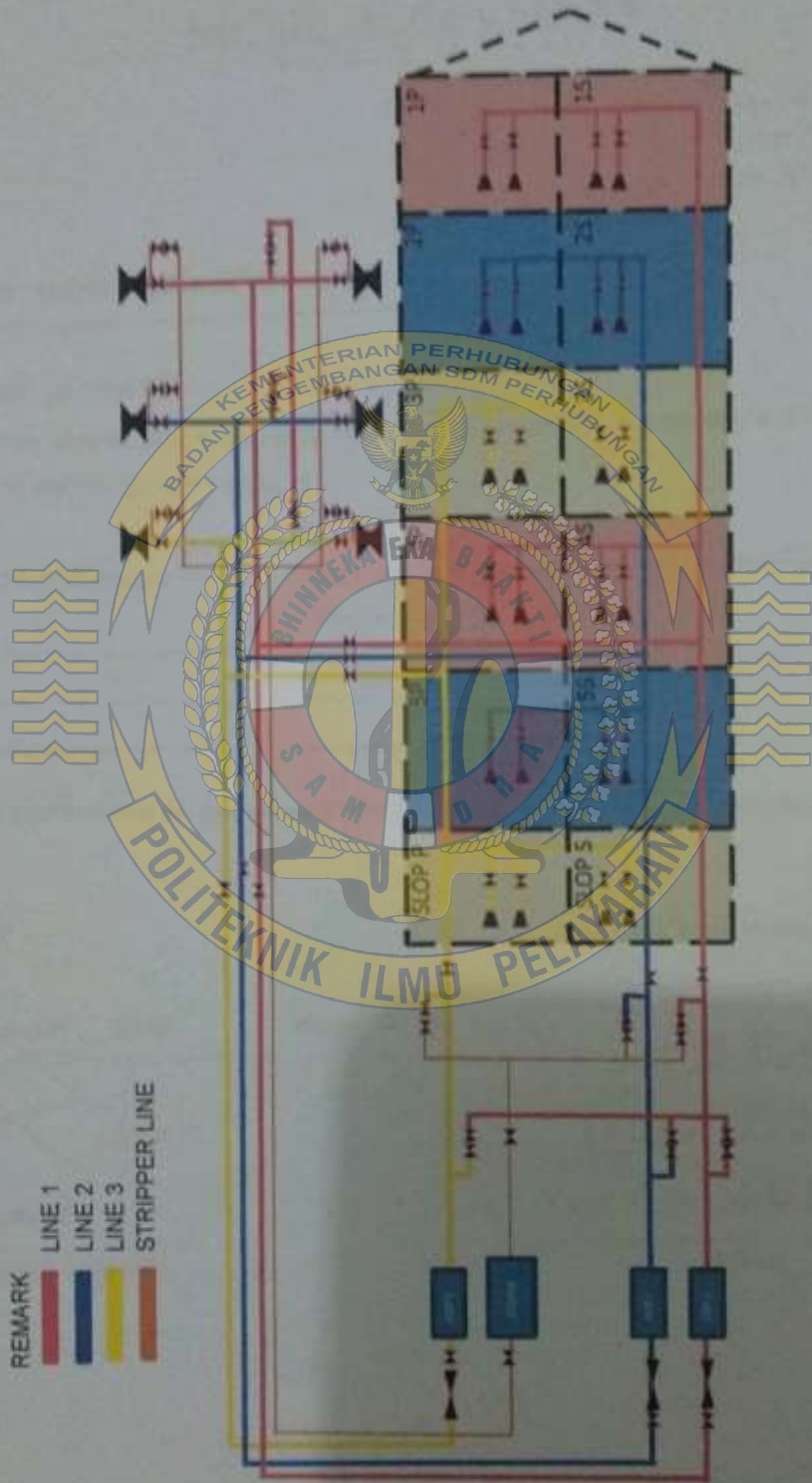
NO	NAMA	NOPEG	JABATAN	TANGGAL LAHIR	JENIS	UJASA		BLKU PELALU		NOMOR PKL / MUTASI	SIGN ON
						NOMOR	UJASA	NOMOR	EXPIRE		
01	Capt. Fitra Juanda Truana	747126	Nakhoda	22.07.1982	ANT I - 2015	620014470N10115	E	03180C	01.12.2017	NO MUTASI 7576/F30340-S6	14.05.2016
02	Andi Solihin	10017030	Mualim I	18.10.1978	ANT I - 2015	6201010203N10216	A	004724	11.02.2017	NO PK 308 : 26 : SYB TPK - 2016	03.05.2016
03	Cadh Lodaya Febriarada	752591	Mualim II	26.02.1987	ANT II - 2013	6200426322N20113	B	013441	09.10.2017	NO PK 308 : 240 : SYB TPK - 2016	26.07.2016
04	Nurrid Sawitri	1001831	Mualim III	22.03.1992	ANT III - 2014	6201590514N30314	Y	08C013	14.11.2018	NO PK 308 : 803 : SYB TPK - 2016	22.10.2016
05	Priyono	10017763	K. K. M	17.03.1966	ATT I - 2014	6200315510T10214	D	094442	18.05.2018	NO PK 308 : 272 : SYB TPK - 2016	12.08.2016
06	Indrayadi	750900	Masinis II	10.10.1977	ATT II - 2009	6200144353T20209	X	031797	09.04.2017	NO PK 308 : 556 : SYB TPK - 2016	17.06.2016
07	Tomu Kadi	751167	Masinis III	28.05.1984	ATT III - 2011	6200495670T30311	W	052812	30.09.2019	NO PK 308 : 637 : SYB TPK - 2016	24.08.2016
08	Muhammad Kasparin	10017886	Masinis IV	25.04.1990	ATT III - 2014	6201590490T30314	Y	069798	16.08.2018	NO PK 308 : 1296 : SYB TPK - 2016	01.09.2016
09	Rodi Aprono	10017241	Pwa.Listrik	29.10.1971	ATT D - 2016	6200078303420710	B	076010	10.06.2018	NO PK 308 : 451 : SYB TPK - 2016	24.08.2016
10	Erlan	10017401	Bosun	10.08.1969	ANT D - 2016	6200129102340716	E	0906455	07.06.2019	NO PK 308 : 627 : SYB TPK - 2016	24.08.2016
11	Usman	10017194	Pumpiran	02.12.1965	ANT D - 2001	6200078481N60201	B	061969	12.04.2018	NO PK 308 : 79 : SYB TPK - 2016	30.05.2016
12	Rio Girsang	10017207	Jurumudi	23.07.1990	ANT D - 2007	6201658807N60712	A	034862	11.06.2017	NO PK 308 : 1136 : SYB TPK - 2016	08.06.2016
13	Muham	10018075	Jurumudi	31.12.1971	BST - 2016	6200077172010716	E	116340	26.08.2019	NO PK 308 : 978 : SYB TPK - 2016	30.09.2016
14	Hadian	10017477	Jurumudi	12.07.1981	ANT D - 2008	6200451109N60708	D	018414	06.11.2017	NO PK 308 : 274 : SYB TPK - 2016	21.07.2016
15	Suberman	10017812	Kelasi	01.03.1981	BST - 2013	6200495217010-13	C	004738	25.08.2018	NO PK 308 : 627 : SYB TPK - 2016	24.08.2016
16	Yogi Sulistyio	10016391	Kelasi	02.03.1983	BST - 2016	6211567154010716	E	059547	03.02.2019	NO PK 308 : 694 : SYB TPK - 2016	22.04.2016
17	Iman Ghozali	10017990	Kelasi	22.07.1993	REFPW - 2015	6201476488330215	B	057501	04.04.2018	NO PK 308 : 499 : SYB TPK - 2016	17.09.2016
18	Emanuel Rebon M.	10018085	Mandor	11.04.1965	BST - 2014	6200380170010714	Y	076420	27.09.2018	NO PK 308 : 957 : SYB TPK - 2016	30.09.2016
19	Fajar Subendra	10018104	Juru Mesin	10.10.1982	BST - 2013	6200487056010713	C	006679	30.08.2018	NO PK 308 : 939 : SYB TPK - 2016	04.10.2016
20	Nuh Akbar	10016407	Juru Mesin	10.05.1990	ATT D - 2013	6200299444160713	Y	032342	21.03.2018	NO PK 308 : 923 : SYB TPK - 2016	27.02.2016
21	Jarahuddin	10016460	Juru Mesin	20.11.1980	ATT D - 2007	6200476874160307	C	069149	11.06.2017	NO PK 308 : 1266 : SYB TPK - 2016	04.03.2016
22	Abunawas	10017924	Juru Masak	11.09.1971	RASD - 2016	6200405702340716	C	061094	07.05.2017	NO PK 308 : 135 : SYB TPK - 2016	17.09.2016
23	Andh	10018167	Juru Masak	06.06.1985	BST - 2015	6211517937010710	E	007570	03.09.2018	NO PK 308 : 67 : SYB TPK - 2016	14.10.2016
24	Ayip Khaerul	10018015	Pelayan	29.02.1996	BST - 2014	6211437357010514	D	049619	01.03.2018	NO PK 308 : 779 : SYB TPK - 2016	30.09.2016
25	Muhammad Suryo Baskoro	20150199	Cadet Deck	04.03.1995	BST - 2015	6211524507010515	D	075118	11.06.2018	No 4563 / F30340 / 2015 - S6	19.11.2015
26	Novia Andriyani	20150223	Cadet Deck	19.11.1994	BST - 2014	621140703010510	D	049087	19.02.2018	No 5024 / F30340 / 2015 - S6	24.12.2015
27	Muhlisin	20150198	Cadet Mesin	02.07.1995	BST - 2015	6211524023010515	D	074895	25.06.2018	No 4562 / F30340 / 2015 - S6	19.11.2015
28	Full Rogokton	20160005	Cadet Mesin	21.07.1995	BST - 2014	6211408173010114	D	060899	28.07.2018	No 5502 / F30340 / 2016 - S6	18.01.2016

Mengetahui,
 Agan,

Pelabuhan : Tg. Cerem
 Tanggal : 24.10.2016
 Nakhoda,

Carl Fira Juanda Truana
 Np. 747126

CARGO PIPELINE DIAGRAM MT.PAGERUNGAN





PT PERTAMINA PERSEKUTUAN
 BERBENTUK - MANAJEMEN & KELOMPOK PERUSAHAAN
 PT PERTAMINA PERSEKUTUAN BERBENTUK
 BERBENTUK - MANAJEMEN & KELOMPOK PERUSAHAAN

NOTICE OF READINESS
 101107 07 00 2016

PTW
 101107
 101107 07 00 2016

To: PT PERTAMINA TRIM SEBARANG

Dear Sirs

I hereby tender you the M^{TRIM SEBARANG} at the date time shown above as being ready in all respects to commence the loading/discharging of her cargo consisting of

Description of cargo	Approximate amount	Full of Loading quantity
Perfamax	10 000 KI	

Laytime will commence as specified in the charter party covering this voyage

ACCEPTED

Very truly yours

Date : June 06th , 2016

Hour: 07.56

By 
 Supriandi
 Discharge Master


 Capt. Fitra Jumiher Fitriana
 Master



The Ship / Shore Safety Check List

SHIP'S NAME : MT.PAGERUNGAN / J Z X D
 BERTH : PERTAMINA CITRA JETTY BELAWAN
 PORT : BELAWAN
 DATE : 6 JUNE 2016

Coding of Items

The presence of the letters A, P or R in the column 'Code' indicates the following:

A - Agreement. This indicates that the referenced consideration should be addressed by an agreement or procedure that should be identified in the "REMARKS" column of the Checklist, or communicated in some other mutually accepted form.

P - Permission. In the case of a negative answer to the statements coded 'P', no operations are to be conducted without the written permission of the appropriate authority.

R - Re-check. This indicates items to be re-checked at appropriate intervals, as agreed between both parties and stated in the declaration.

A	Physical Checks	Ship	Terminal	Code	Remarks
1	There is safe access between the ship and shore	✓	✓	R	port leader
2	The ship is securely moored	✓	✓	R	FWD & AFT 3x2
3	The agreed ship/shore communication system is operative	✓	✓	A R	System..RS... Backup System.....
4	Emergency towing-off pennants are correctly rigged and positioned	✓		R	FWD & AFT 1 m A/W
5	The ship's fire hoses and fire-fighting equipment is positioned and ready for immediate use	✓		R	2 Pcs Dry powder Portable 2 Pcs hose
6	The Terminal's fire hoses and fire-fighting equipment is positioned and ready for immediate use		✓	R	
7	The ship's cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended	✓			
8	The Terminal's cargo and bunker hoses/arms are in good condition, properly rigged and appropriate for the service intended		✓		
9	The cargo transfer system is sufficiently isolated and drained to allow safe removal of blank flanges prior to connection	✓	✓		
10	Scuppers and 'save alls' on board are effectively plugged and drip trays are in position and empty	✓		R	

11	Temporarily removed scupper plugs will be constantly monitored	✓		R	
12	Shore spill containment and sumps are correctly managed		✓	R	
13	The ship's unused cargo and bunker connections are properly secured with blank flanges fully bolted	✓			
14	The Terminal's unused cargo and bunker connections are properly secured with blank flanges fully bolted		✓		
15	All cargo, ballast and bunker tank lids are closed	✓			
16	Sea and overboard discharge valves, when not in use, are closed and visibly secured	✓			
17	All external doors, ports and windows in the accommodation, stores and machinery spaces are closed. Engine Room vents may be open	✓		R	
18	The ship's emergency fire control plans are located externally	✓			Location: POOP DECK PORT & STBD.
19	Fixed IGS pressure and oxygen recorders are working	N/A		R	
20	All cargo tanks atmospheres are at a positive pressure with oxygen content of 8% or less by volume	N/A		P R	
B	VERBAL VERIFICATION	Ship	Terminal	Code	Remarks
21	The ship is ready to move under its own power	✓		P R	30 minutes
22	There an effective deck watch in attendance on board and adequate supervision of operations on the ship and in the Terminal	✓	✓	R	2 AB 1 Cadet 1 Officer
23	There are sufficient personnel on board and ashore to deal with an emergency	✓	✓	R	
24	The procedures for cargo, bunker and ballast handling been agreed	✓	✓	A R	
25	The emergency signal and shutdown procedure to be used by the ship and shore been explained and understood	✓	✓	A	
26	Material Safety Data Sheets (MSDS) for the cargo transfer have been exchanged where requested	✓	✓	P R	
27	The hazards associated with toxic substances in the cargo being handled have been identified and understood	✓	✓		H2S= 0.0 ppm Benzene= 0.0 ppm Mercaptan= 0.0 ppm
28	An International Shore Fire Connection has been provided	✓	✓		Location: POOP DECK PORT SIDE.
29	The agreed tank venting system will be used	✓	✓	A R	
30	The requirements for closed operation have been agreed	✓	✓	R	
31	The operation of the P/V system has been verified	✓			

Lampiran 4.4

Lampiran 4.7

32	Where a vapour return line is connected, operating parameters have been agreed		✓	A R	
33	Independent high level alarms, if fitted, are operational and have been tested	✓		A R	
34	Adequate electrical insulating means are in place in the ship/shore connection	✓	✓	A R	
37	Naked lights regulations being observed	✓	✓	A R	
38	Ship/shore telephones, mobile phones and pager requirements are being observed	✓	✓	A R	
39	Hand torches (flashlights) are of an approved type	✓	✓		
40	Fixed VHF/UHF transceivers and AIS equipment are on the correct power mode or switched off	✓	✓		
41	Portable VHF/UHF transceivers are of an approved type	✓	✓		
42	The ship's main radio transmitter aerials are earthed and radars are switched off	✓	✓		
43	Electric cables to portable electrical equipment within the hazardous area are disconnected from power	✓	✓		
44	Window-type air conditioning units are disconnected	✓	✓		
45	Positive pressure is being maintained inside the accommodation, and air conditioning intakes, which may permit the entry of cargo vapours, are closed	✓	✓		
46	Measures have been taken to ensure sufficient mechanical ventilation in pumproom	✓	✓	R	
47	There is provision for an emergency escape	✓	✓		
48	The maximum wind and swell criteria for operations have been agreed	✓	✓	A	Stop cargo at ___ m/s Disconnect at ___ m/s Unberth at ___ m/s
49	Security protocols have been agreed between the Ship Security Officer and the Port Facility Security Officer, if appropriate	✓	✓	A	Level 1

Declaration:

We, the undersigned, have checked the items in Parts A and B, in accordance with the instructions and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

We have also made arrangements to carry out repetitive checks as necessary and agreed that those items coded 'R' in the Check List should be re-checked at intervals not exceeding ___ hours.

If to our knowledge the status of any item changes, we will immediately inform the other party.

Terminal Representative		Terminal Representative	
Name : <i>[Signature]</i>	Name : Supriandi	Name : <i>[Signature]</i>	Name : Supriandi
Rank : <i>[Signature]</i>	Rank : Loading master	Rank : <i>[Signature]</i>	Rank : Loading master
Signature : <i>[Signature]</i>	Signature : <i>[Signature]</i>	Signature : <i>[Signature]</i>	Signature : <i>[Signature]</i>
Contact Time : 6 June 2016	Contact Time : 6 June 2016	Contact Time : 6 June 2016	Contact Time : 6 June 2016

Records of repetitive checks

DATE :	04/06	04/06	04/06	04/06	06/06	07/06	07/06
TIME :	09.00	12.00	16.00	20.00	09.00	04.00	08.00
Initial For Ship :	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Initial for shore :	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

DATE :							
TIME :							
Initial For Ship :							
Initial for shore :							

DATE :							
TIME :							
Initial For Ship :							
Initial for shore :							



**PT PERTAMINA (PERSERO)
SHIPPING – MARKETING & TRADING DIRECTORATE**

TANKER OPERATION, PT PERTAMINA (PERSERO) HEAD OFFICE 19th Floor, Jln. Merdeka Timur 1A Jakarta 10110 Phone : (62-21) 3816367, 3816314, 3816338, 3816363, 3816217. Fax : 3455430, 3816348, 3607121 E-mail: opstanker@pertaminashipping

SHIP / SHORE AGREEMENT

Vessel Name : MT. PAGERUNGAN Grade of Cargo : perlamax
Berth No. : pertamina citra jetty belawan Date : june 6th, 2016

A. Vessel's Information:

Product Code	Ship Pipeline Dia. size	Maximum Discharge Rate	Maximum Pressure	No. of Ship's Tank
Pertamax	10 inch	500 kl/h	4 kg	1 & 4

B. Terminal Information

Product Code	Loading Hose/Arm Dia. size	Maximum Rate	Maximum Pressure	Shore Tank No.
Pertamax	10 Inch	500 kl/h	4 kg	Shore Tank Number 10

C. Agreed cargo handling procedure


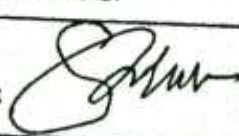
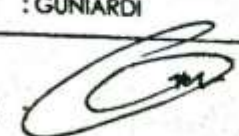
	1 st Grade	2 nd Grade	3 rd Grade
L/A (Hose Connection)	Manifold 1		
Initial Discharge rate	100 kl/h		
Maximum Discharge rate	500 kl/h		
Stripping Rate	100 kl/h		
Slowdown Notice	Ship		
Final stopping by	Ship		
Quantity Discharge	10000 kl		
Allowable Maximum Departure Draft		6 m	

D. Emergency Shut Down

Emergency Signal	1 (one) long blast & Attention by P/A system.
Action in Case Of Emergency	Closed manifold in 60 Sec
Location of Emergency Stop	Near Manifold (Port&Stbd), CCR, Pumproom & Entrance Door (port&stbd)

E. Communication Procedure

	Ship	Shore
1. Contact of Ship/Shore	VHF/Walkie Talkie/Face to Face (Verbal)	Ch. 09
2. Contact Persons	PAGERUNGAN	

Chief Officer	Terminal Representative	Cargo Surveyor
Name : ANDI SOLIHIN	Name : SUPRIANDI	Name : GUNIARDI
Signature 	Signature : 	Signature 

Lampiran 4.6 Daftar Pertanyaan Wawancara

DAFTAR PERTANYAAN WAWANCARA

Pertanyaan untuk Nakhoda dan Muallim I

1. Faktor-faktor apa saja yang menyebabkan persiapan pembongkaran muatan *oil product* di MT.Pagerungan tidak optimal?
2. Apakah dampak yang ditimbulkan akibat persiapan pembongkaran muatan *oil product* di MT.Pagerungan yang tidak optimal?
3. Upaya apakah yang dilakukan untuk mencegah tidak optimalnya persiapan pembongkaran muatan *oil product* di MT.Pagerungan?

a. Wawancara dengan Nakhoda

Penulis : Faktor-faktor apa saja yang menyebabkan persiapan pembongkaran muatan *oil product* di MT.Pagerungan tidak optimal?

Nakhoda : Tidak optimalnya persiapan pembongkaran terjadi di kapal MT. Pagerungan disebabkan karena sebelum pelaksanaan pembongkaran muatan tidak dilaksanakan toolbox meeting hal ini berdampak pada tahap pelaksanaan persiapan pembongkaran sehingga kegiatan tidak berjalan sesuai dengan rencana yang telah dibuat oleh Muallim I sebagai penanggungjawab muatan.

Penulis : Apakah dampak yang ditimbulkan akibat persiapan pembongkaran muatan oil product di MT.Pagerungan yang tidak optimal?

Nakhoda : Dampak yang terjadi akibat tidak optimalnya persiapan pembongkaran terjadi di kapal MT. Pagerungan adalah kegiatan persiapan pembongkaran tidak terlaksana sesuai dengan *discharge order* yang telah dibuat oleh Muallim I sehingga terjadi kesalahan dalam pelaksanaan *line up* pembongkaran di kapal MT. Pagerungan, dalam kasus ini yaitu tidak dibukanya *drop line valve* yang berguna untuk mensirkulasikan muatan yang bertujuan untuk mengurangi tekanan dan *rate* yang keluar dari *manifold* sehingga *initial rate* tidak dapat dicapai dan jika *initial rate* tidak dicapai ketika dimulainya pembongkaran maka terjadi tekanan balik yang mengakibatkan rusaknya *expansion joint* pada *line* satu hal ini tentunya akan merugikan perusahaan karena perusahaan harus mengeluarkan dana ekstra untuk melakukan penggantian material yang mengalami kerusakan dan juga dapat merugikan *crew* kapal ketika kapal sedang jalan atau sedang berlabuh *crew* kapal yang harus melaksanakan *maintenance* sesuai dengan jadwal *maintenance* yang bersifat *daily, weekly, monthly*

maupun *annaly* dapat terbengkalai karena harus melakukan perbaikan *expansion joint* yang mengalami kerusakan

Penulis : Upaya apakah yang dilakukan untuk mencegah tidak optimalnya persiapan pembongkaran muatan oil product di MT.Pagerungan?

Nakhoda : Dengan cara melaksanakan *line up* pembongkaran ulang yang sebelumnya pembongkaran dilaksanakan menggunakan *line* satu dan pompa satu dirubah menggunakan *line* tiga dan pompa nomor tiga kemudian melaksanakan perbaikan *expansion joint* pada *line* satu yang mengalami kerusakan akibat tidak kuat menahan tekanan balik.

Wawancara dengan Mualim I

Penulis : Faktor-faktor apa saja yang menyebabkan persiapan pembongkaran muatan oil product di MT.Pagerungan tidak optimal?

Mualim I : pengawasan yang dilaksanakan oleh Mualim Jaga sangatlah kurang karena Mualim jaga hanya memerintah para petugas yang bertugas di deck tanpa melakukan empat tahapan pengawasan *Precontrol* yaitu pengawasan yang di lakukan sebelum memulai kegiatan, terdiri atas kegiatan persiapan: Spesifikasi masukan, keluaran, kejelasan tujuan, sumber daya

yang di perlukan. Kemudian pengarah atau *steering control* yaitu pengawasan yang fokus pada apa yang terjadi selama proses kerja, disini diarahkan untuk menemukan masalah dan melakukan tindakan perbaikan sebelum hasil akhir kemudian pengawasan ya atau tidak *yes or no control* yaitu

kepastian titik kritis yang harus di lalui sebelum suatu kegiatan berlaihu. Pada suatu titik segala persyaratan harus dipenuhi terlebih dahulu (ya) sebelum proses berlanjut. Jadi

kalan tidak, proses berhenti kemudian pengawasan *post action control* atau *feedback control* yaitu pelaksanaan setelah

pengawasan ya atau tidak dilaksanakan yaitu mengambil tindakan penyelesaian masalah jika ada

Penulis : Apakah dampak yang ditimbulkan akibat persiapan pembongkaran muatan oil product di MT.Pagerungan yang tidak optimal?

Muallim I : ketika crew melakukan sesuatu hal yang tidak sesuai dengan rencana Muallim Jaga tidak dapat melakukan koreksi. Karena tidak dilaksanakan pre control, steering control, yes or no control dan feedback control.

Penulis : Upaya apakah yang dilakukan untuk mencegah tidak optimalnya persiapan pembongkaran muatan oil product di MT.Pagerungan?

Mualim I : dengan cara melaksanakan pengawasan dalam pelaksanaan persiapan pembongkaran muatan adapun cara pengawasan yang harus dilaksanakan yaitu sesuai dengan empat tahapan pengawasan yang Mualim I jelaskan sebelumnya.



MT. PAGERUNGAN

Date : 06 June 2016

OIL TRANSFER PROCEDURES FOR DISCHARGING

Voyage : 20 / D2 / 2016 - - - -BELAWAN

Safety in General :

- ⊗ Observe Vessel " Oil Transfer Procedure" and all other PT. Pertamina Shipping / Master's and Chief Officer Standing Order
- ⊗ Comply with port Safety and Local / Charterer regulation
- ⊗ Check cargo system is secure at all times,
- ⊗ Anti pollution prevention equipment ready in place
- ⊗ All scupper plug to be effectively plugged
- ⊗ Ship/Shore check list & STS check list to be completed
- ⊗ Issued Pump room Entry Permit

Before Cargo Operation :

- Open suction valve of C.O.T : ...1 P/S.....
- Run C.O.P no...1.....
- Close valve are not used and open valve dropping for circulation.
- Discharge line in use No.1..... for COP.....1.....& Manifold No.....RED..... (RED/GREEN/YELLOW)
- Tank to be discharged AS BELOW.

NO	DISCHARGE SQUENCE	BALLAST SQUENCE
I	Open COT 1P/S , for first disch tank After 1 hours open COT 4 P/S (1 P/S 10%- 4 P/S 10%)	Ballasting 1-5 P/S 50% (Sounding 3mtr)
II	COT 1W dry - COT 4W20%	Ballasting 3-5 P/S 80%
III	Last COT 4w dry	Ballasting 1-5 P/S (Sounding 11mtr)

- Lining up discharge line valves in Pump room before start discharging operation as follows :

For group I COP# 1

- o Valve to be open : no. 003, 001, 009, 010, 023,028,035,036,041

For group II COP# 2

- o Valve to be open : no.....

For group III COP#3,

- o Valve to be open : no.....

- OPEN VALVE MANIFOLD AND DROPPING
- Check all other Valves must be WELL SHUT and Secured

Starting Discharging of Cargo :

- Discharge cargo.....PERTAMAX.....Quantity :...10.000.....M3
- Pumping rate request from receiving ship/terminal :.....600.....M3/Hrs
- Make sure isolating valve and all Inert Gas branch valves into all cargo tanks are open.
- Inform Engine room that deck part ready for start IGS
- Start COP and make sure that cargo was passing through discharging manifold by check the pressure gauge.

- Start at a slow rate....100....M3/Hrs and only be increased to the agreed rate once both parties are satisfied that the flow of oil to and from designated tanks is confirmed.
- Inform to receiving ship that discharging was started and get information that receiving ship has received the cargo.
- Allowed several times for round checking in pump room and manifold before speed up. Discharge simultaneously all tanks (follow dischr. sequences).

During Discharging Operation :

- Checking all the mooring line
- Minimum of one watchman to be on deck at all times, with hourly checks and reported to CCR.
- Make entries in port log for all major timing of cargo operation
- Pump room to be checked every hour by A/B on duty and report to Officer on duty.
- Close all water tight doors to accommodation., keep one entrance from starboard side only.
- Maintain Pumping Log and hourly rate, and check stability every 1 hours and record accordingly
- Check "Non discharge tanks" every 4 hours to make sure not accidentally discharged.
- During discharging please maintain discharge rate & INCREASE if nessecery.

Completion of Discharging :

- Tank to be completed as per Discharging Sequences.
- Before completion, all tank which have completed to be re-check to avoid short discharge/over landed.
- Adjust pump speed as necessary
- Before stoping any COP, at while test using stop by individual Emergency stop in deck manifold or pump room – do not use common emergency stop in CCR, it will shut down both COP at same moment.
- Shut cargo tank valve, manifold valve after last COP have stop.

Final DRAFT: FWD : 4.0 m AFT : 6.0 m Trim : 2.00 m

REMARKS:

REMARKS: (If any abnormal condition exists, please inform the responsible person immediately. The responsible person shall be responsible to solve the problem immediately.)

- Fire on the vessel or in its vicinity
- During thunder and lightning storms.
- When any moving ship may run afoul of the vessel
- When heavy or dangerous vapor accumulation exists around the vessel

Maintain communications with Loading master/ mooring master and pass necessary information:

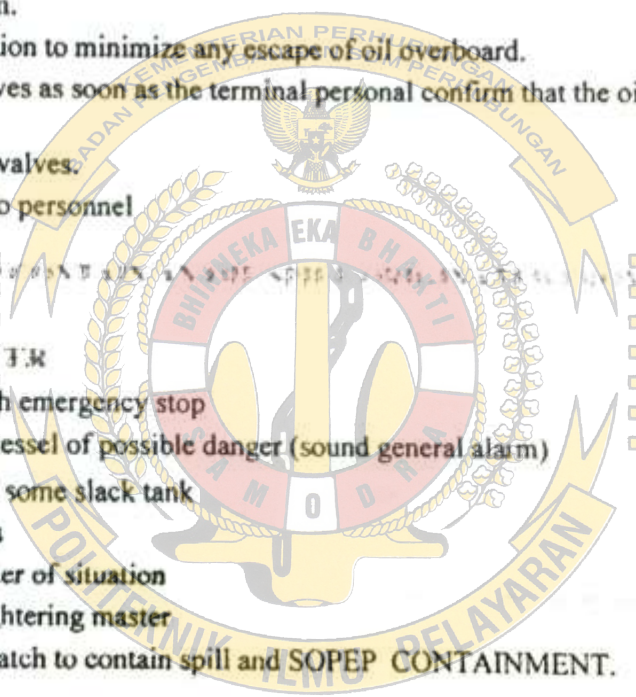
- Exchange figures with Mother/ Daughter as agreed during PTC
- Contact him whenever you intend to shut any internal cargo valves so they can be alert for any pressure change
- Smoking regulations must be observed
- Loading or discharging pressure must be within allowable limits

PERALATAN DAN KEMAMPUAN TERSEBUT TERBUKA KEPADA:

- Automatic gauges
- Pump room at least every one hour
- Hoses or arms
- Sea Surface around vessel
- Tanks that have been stripped dry to be sure valves are not leaking
- Scupper plugs
- SBM lines must be checked frequently and one deck hand standby fwd.
- All checks as per Ship Shore Safety checklist and Cargo checklist.

EMERGENCY SHUT DOWN PROCEDURES

- Immediately notify terminal personal to stop oil transfer to the vessel.
- Sound general alarm.
- Take immediate action to minimize any escape of oil overboard.
- Close manifold valves as soon as the terminal personal confirm that the oil transfer has been stopped
- Close tank loading valves.
- Minimize hazards to personnel

- 
- Stop cargo pumps with emergency stop
 - Warn vessel and tug vessel of possible danger (sound general alarm)
 - Open drop valves and some slack tank
 - Close manifold valves
 - Alert and inform master of situation
 - Advice terminal or lightering master
 - Mobilize duty deck watch to contain spill and SOPEP CONTAINMENT.

- Prepare for fire fighting' assist chief engineer, ensure sufficient air supply to deck.

- If oil leakage is detected, immediately alert the officer on duty
- Open valves from air driven portable pumps to slop tanks an start pumps
- Position absorbent material to prevent any oil from reaching the railings
- Commence clean up

- Sound general alarm
- Test atmosphere for hydrocarbon
- Try to contain the spill on deck
- Secure anything that could start the fire and deploy fire equipment
- Assess the situation without delaying other response step, establish the type of oil spilled and estimate its size impact on the surrounding area
- Proceed to muster station and await orders from head squad leader

- Restrict spill area access to only those responding to the oil spill

RESPONSORIALI CONSIDERABILI PERILLOSI.

THE FOLLOWING ARE SOME OF THE NEW CONSIDERATIONS TO BE TAKEN INTO ACCOUNT WHEN RESPONDING TO AN OIL SPILL.

- Fire and explosion potential always exist
- If uncertain about safety of an area, approach wearing protective gear
- Approach spill from upwind if possible
- Do not walk into or touch any spilled material, avoid inhaling fumes, smoke and vapors even if no hazardous materials are involved
- Try to avoid the spilled oil to reach the rail
- Start the air driven pumps immediately
- Try to avoid spilled oil to escape overboard

THE IMMEDIATE RESPONSE TO ANY OIL SPILL IS VERY IMPORTANT. ALL PERSONS INVOLVED MUST KNOW ACT PROPERLY TO MINIMIZE ANY ESCAPE OF OIL

COMMUNICATION ON BOARD:

- PERSON TO PERSON BY WALKIE TALKIE
- TERMINAL TO CCR DUTY OFFICER VHF CHANNEL # _____ AND IN EMERGENCY SHORE RADIO CHANNEL # _____

ANY EMERGENCY CONTACT LOADING/ MOORING MASTER BY VHF CHANNEL # _____ VERBAL _____ OR RADIO CHANNEL # _____

Please call **Chief mate** when any start / stop of cargo operation and any time if you are in doubt on VHF Ch. 09/ Local Ch. PIKET :

Prepared by

[Signature]
Chief Officer

Acknowledge By.

[Signature]
DIT. PERHUBUNGAN DAN PENGEMBANGAN SDM PERHUBUNGAN
(PERSI-DO)
Master Pagarungan

Read and understood By. *[Signature]*

2nd Officer :

[Signature]
3rd Officer:

Discharge Activity

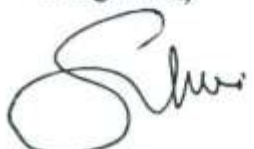
* Periksa kondisi pipa-pipa/manifold/hose, tail-tail, pumproom, dan peralatan sekitar dari kebocoran minyak dan pollution tiap 1 jam serta catat dalam buku kegiatan ini!

BERITA ACARA

Pada hari ini tanggal 6 juni 2016, saat kapal akan melakukan bongkar muatan pertamax +/-1000kl di pertamina citra jetty belawan, telah terjadi kerusakan pada seal ekspansi joint line 1 di kapal MT.Pagerungan. adapun penyebab kerusakan, setelah dilakukan pemeriksaan oleh pihak kapal dan pihak jetty kerusakan tersebut disebabkan oleh belum terbukanya drop line valve pada line satu sehingga saat akan melakukan pembongkaran langsung menggunakan rate maksimal kapal, hal ini menyebabkan terjadinya tekanan balik yang mengakibatkan kerusakan tersebut.

Demikian berita acara ini dibuat untuk digunakan sebagaimana mestinya.

Mengetahui,


Supriandi
(Loading Master)

