CALIFORNIA STATE LANDS COMMISSION 100 Howe Ave, Suite 100S Sacramento, CA 95825



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July 24, 2017

File Ref: W9777.234 W9777.243

Dear Shipping Agent,

In accordance with California Public Resources Code section 71204.3(c)(4) and California Code of Regulations (C.C.R.), title 2, section 2284, the master, owner, operator, or person in charge of a vessel that arrives at a California port <u>is authorized</u> to manage their vessel's ballast water using either of the following:

- United States Coast Guard (USCG) Type Approved Ballast Water Management Systems (BWMS); or
- USCG accepted Alternative Management Systems (AMS)

The use of either a USCG Type Approved BWMS or a USCG accepted AMS is considered an alternative, environmentally sound method of management that has been approved by the California State Lands Commission or the USCG as being at least as effective as ballast water exchange, using mid-ocean waters, in removing or killing nonindigenous aquatic species.

USCG Type Approved BWMS

The USCG recently released a list of Type Approved BWMS (Attachment A). Because any USCG Type Approved BWMS must be at least as effective as mid-ocean ballast water exchange (per National Invasive Species Act of 1996, section 1101(b)(2)(B)(iii)), use of any of the USCG Type Approved BWMS for the management of ballast water prior to discharge within California waters is in accordance with Public Resources Code section 71204.3(c)(4) and C.C.R. title 2, section 2284. A USCG Type Approved BWMS may be used as an acceptable alternative to ballast water exchange.

USCG accepted AMS

The USCG maintains a list of accepted AMS for Ballast Water Treatment on their website https://homeport.uscg.mil/ (see Attachment B for the list as of 7/21/2017).

Because any USCG accepted AMS must demonstrate an efficacy at least as effective as mid-ocean exchange (per CG-OES Policy Letter No. 12-01, dated 15 June 2012), use of any of the accepted AMS for the management of ballast water prior to discharge within California waters is in accordance with Public Resources Code section 71204.3(d) and C.C.R., title 2, section 2284. A USCG accepted AMS may be used as an acceptable alternative to ballast water exchange.

Reporting Use of Ballast Water Treatment Systems in California

Please note that vessels discharging treated ballast in California waters with either a USCG Type Approved BWMS or a USCG accepted AMS must fill out the "Ballast Water Treatment Technology Annual Reporting Form" (Attachment C) and the "Ballast Water Treatment Supplemental Reporting Form" (Attachment D). Additionally, vessels using either a USCG Type Approved BWMS or a USCG accepted AMS in California waters must report the ballast water management system on the Ballast Water Management Report.

Please feel free to contact me at the telephone number listed above or by email at Nicole.Dobroski@slc.ca.gov if you have any further questions.

Sincerely,

Nicole Dobroski Assistant Chief

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Marine Environmental Protection Division

Enclosures: Attachment A – USCG Type Approval List

Attachment B – USCG AMS list

Attachment C – Ballast Water Treatment Technology Annual Reporting Form Attachment D – Ballast Water Treatment Supplemental Reporting Form

cc: Chris Beckwith, Chief, Marine Environmental Protection Division, CSLC Patrick Huber, Staff Attorney, CSLC



Marine Safety Center BWMS Type Approval Status



	Approved										
Date Received	Manufacturer (Country)	Model	Independent Lab	System Type	Approved Range	Certificate Issued*					
20 Sep 2016	Optimarin (Norway)	OBS/OBS Ex	DNV GL	Filtration + UV	167 – 3000 m ³ /h	02 Dec 2016					
21 Sep 2016	Alfa Laval (Sweden)	Pure Ballast 3	DNV GL	Filtration + UV	$150 - 3000 \text{ m}^3/\text{h}$	23 Dec 2016					
23 Sep 2016	OceanSaver AS (Norway)	MK II	DNV GL	Filtration + Electrodialysis	200 – 7200 m ³ /h	23 Dec 2016					
24 Jan 2017	Sunrui (China)	BalClor	DNV GL	Filtration + Electrolysis	170 – 8500 m3/h	07 Jun 2017					

		l	Under Review			
Date Received	Manufacturer (Country)	Model	Independent Lab	System Type	Approved Range	Certificate Issued
31 Mar 2017	Ecochlor, Inc. (USA)	Ecochlor BWTS	DNV GL	Filtration + Chemical Injection	500-16,200 m3/h	Pending
02 May 2017	Erma First	Erma First FIT	Lloyds Register	Electrolysis + Filtration	100-3000 m3/h	Pending

^{*}Complete copies of the Coast Guard Type Approval Certificates can be found on the Coast Guard HOMEPORT website under the "Environmental" Missions Tab or by visiting the USCG Approved Equipment List at: http://cgmix.uscg.mil/Equipment/Default.aspx

				Freshwater (< 1 PSU)	Brackish Water (10-20 PSU)	Marine Water (28 -36 PSU)	Acceptance
No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	Date
1	AMS-2013-Alfa Laval-PureBallast-001	Alfa Laval Yumba AB	PureBallast 250-2500	0	1	1	15-Apr-13
			PureBallast 2.0/2.0 Ex and associated Boll &				
2	AMS-2013-Alfa Laval-PureBallast-002	Alfa Laval Yumba AB	Kirch or Hydac	0	1	1	15-Apr-13
			BalPure BWTS: BalPure models BP-6, -8, -12, -				
			24, -32, -36, -48, -60, -75, -500, -675, -1000, -				
			2000, -2650, -3000, -4000, and -5000, with		_		
3	AMS-2013-STDN-BalPure-001	DeNora Water Technologies, Inc.	associated filter modules	0	1	1	15-Apr-13
			Ecochlor, incorporating Series 75, 100, 150,				
4	AMS-2013-Ecochlor-001	Ecochlor Inc.	200, 250, and 300, with associated filter	0	1	1	1E Apr 12
4	AIVIS-2013-ECOCIIIOI-001	ECOCIIIOI IIIC.	housing models BS-050 to BS-1200 Hyde GUARDIAN models HG60, -100, -150, -	U	1	1	15-Apr-13
			200, -250, -300, -400, - 450, -500, -600, -700, -				
			800, -900, -1000, -1250, -1350, -1400, -1488, -				
			1600, -2000, -2500, -2975, -4000, -5000, -6000				
			and alternative filter housings SF50, SF70, and				
5	AMS-2013-Hyde-Guardian-001	Hyde Marine Inc.	SF90	0	1	1	15-Apr-13
	·						·
			NK-O3 BlueBallast BWTS: NK-O3 BlueBallast				
			models NK-O3-010, -015, -030, -040, -050, -				
6	AMS-2013-NK-03-BlueBallast-001	NK Co., Ltd.	075, -100, -150, -200, -250, -300, and -400	0	1	1	15-Apr-13
			OceanGuardTM BWTS and associated filter				
7	AMS-2013-Headway-OceanGuard-001	Qingdao Headway Technology Co., Ltd.	housing HMT-100F to -4000F	0	1	1	15-Apr-13
			CleanBallast(R) -150, -200, -250, -300, -350, -				
			400, -450, -500, -500-1, -750, -1000, -1250, -				
			1500, -1750, -2000, -2250, -2500, -2750, -3000, -				
0	ANAC 2012 DIMO Classic Ballage 201	DWO Marine Water Task as leave Consu	3250, -3500, -3750, and CleanBallast(R) -	0	4	4	45 4 42
8	AMS-2013-RWO-CleanBallast-001	RWO Marine Water Technology Group	Modular Configurations	0	1	1	15-Apr-13
			GloEn-Patrol models P50, P150, P250, P300, P350, P500, P700, P750, P800, P900, P1000,				
			P1200, P1500, P2000, P2500, P3000, P3500,				
			P4000, P4500, P5000, P6000 with associated				
9	AMS-2013-PANASIA-GloEn-Patrol-001	Panasia Co., Ltd	filter housings	0	1	1	29-Apr-13
			BalClor BWTS: BalClor models BC-300, BC-500,				
			BC-1000, BC-1500, BC-2000, BC-2500, BC-3000,				
		SunRui Marine Environment Engineering	BC-3500, BC-4000, BC-5000, BC-6000, and BC-				
10	AMS-2013-SunRui-BalClor-001	Co., Ltd.	7000, with associated filters	0	1	1	01-May-13
			Optimarin Ballast System and approved filter				
			$modules\ Micro-Kill\ BSF\ Filter,\ Filtrex\ ACB\ Filter,$				
11	AMS-2013-Optimarin Ballast System-001	Optimarin AS	and Micro-Kill Boll Filter Selfclean	0	1	1	18-Jun-13
			HiBallast System HiB-75, HiB-150, HiB-225, HiB-				
			300A, HiB-300B, HiB-500, HiB-600, HiB-900,				
	ANG 2042 H		HiB-1000, HiB-1200, HiB-1200, HiB-1500, HiB-	6	,		24.1
12	AMS-2013-Hyundai-HiBallast-001	Hyundai Heavy Industries, Inc.	2000 and associated filter	0	1	1	24-Jun-13

				Freshwater (< 1 PSU)	Brackish Water (10-20 PSU)	Marine Water (28 -36 PSU)	Acceptance
No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	Date
			HiBallast-EX System HiB-75-Ex, HiB-150-Ex, HiB-				
			225-Ex, HiB-300A-Ex, HiB-300B-Ex, HiB-500-Ex,				
			HiB-600-Ex, HiB-900-Ex, HiB-1000-Ex, HiB-1200- Ex, HiB-1500-Ex, HiB-2000-Ex and associated				
13	AMS-2013-Hyundai-HiBallast-EX-001	Hyundai Heavy Industries, Inc.	filter housing	0	1	1	24-Jun-13
13	ANIS 2013 Tryandar Tibaliast EX 001	Tryandar ricavy maustries, me.	MMC Ballast Water Management System	Ü	-	-	24 Juli 13
			Model 150 and Model 300 and associated				
14	AMS-2013-MMC BWMS-001	MMC Green Technology AS	filter	0	1	1	29-Aug-13
			OceanSaver MK II models C2E-S200/ 5/13, C2E-				
			S405/5/13, C2E-S610/5/13, C2E-S815/5/13,				
			C2E-S1020/5/13, C2E-M1220/ 5(S)/13, C2E-				
			M1425/5(S)/13, C2E- M1630/5(S)/13, C2E-				
			M1835/5(S)/13, C2E- M2040/5(S)/13, C2E-				
			M2245/5(S)/13, C2E- L2445/5(S)/13, C2E-	_	_		
15	AMS-2013-OceanSaver MK II-001	OceanSaver AS	L2650/5(S)/	0	1	1	23-Sep-13
			OceanGuard BWTS models HMT-50, HMT-50E,				
			HMT-100, HMT-100E, HMT-200, HMT-200-E,				
			HMT-300, HMT-300E, HMT-450, HMT-450E, HMT-600, HMT-600E, HMT-800, HMT-800E,				
			HMT-1000, HMT-1000E, HMT-1200, HMT-				
			1200E, HMT-1500, HMT-1500E, HMT-2000,				
			HMT-2000E, HMT-2500, HMT-2500E, HMT-				
16	AMS-2013-Headway-OceanGuard-002	Qingdao Headway Technology Co., Ltd.	3000, HMT-3000E	0	1	1	23-Sep-13
			-1250, -1250-SF,-1500,-1500-SF, -1750, -1750-				
17	AMS-2013-Samsung Purimar-001	Samsung Heavy industries, Inc.	SF, -2000,-2000-SF, -2250, -2250-SF,	0	1	1	04-Oct-13
			Electro-Cleen models ECS-150B, Ex-ECS-150B,				
			ECS-300A, Ex-ECS-300A, ECS-300B, Ex-ECS-				
			300B, ECS-450B, Ex-ECS-450B, ECS-600A, Ex-				
10	ANAC 2042 Task sugar Flankus Class 204	Taskanas Inc	ECS-600A, ECS-600B, Ex-ECS-600B, ECS-1000A,	0	4	4	04.0-+ 42
18	AMS-2013-Techcross Electro-Cleen-001	Techcross, Inc.	ECS-1000B, Ex-ECS-1000B	0	1	1	04-Oct-13
			BSKY(TM) BWMS models: - BSKY(TM) BWMS models BSKY100, BSKY150, BSKY200, BSKY250,				
			BSKY300, BSKY350, BSKY400, BSKY450,				
			BSKY500, BSKY600, BSKY700, BSKY800,				
			BSKY900, BSKY1000, BSKY1100, BSKY1200,				
			BSKY1300, BSKY1400, BSKY1500, BSKY2000,				
	AMS-2013-		BSKY3000, BSKY4000, BSK, BSKY5000,				
19	BSKYBallastWaterTreatmentSystem-001	Wuxi Brightsky Electronic Co., Ltd.	BSKY6000	0	1	1	04-Oct-13
			OxyClean 75, OxyClean 100, OxyClean 200,				
			OxyClean 300, OxyClean 400, OxyClean 500,				
			OxyClean 600, OxyClean 700, OxyClean 800,				
			OxyClean 1000, OxyClean 1000, OxyClean 1100,				
			OxyClean 1200, OxyClean 1300, OxyClean 1400, OxyClean 1500, OxyClean 1600,				
20	AMS-2013-DESMI OxyClean BWTS-001	Desmi Ocean Guard AS	OxyClean 17	1	1	1	11-Oct-13
_0	2020 225 5., Glean 511 10 001		,	-	-	-	

				Freshwater (< 1 PSU)	Brackish Water (10-20 PSU)	Marine Water (28 -36 PSU)	Acceptance
No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	Date
	AMS-2013-ERMA FIRST Ballast Water		ERMA FIRST BWTS models: 50, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800,				
21	Treatment System-001	Erma First ESK Engineering Solutions SA	1900, 2000, 2100 JFE BallastAce 4500 with Treatment Rated Capacity from 17.5 thru 4500 m3/h, and	0	1	1	11-Oct-13
22	AMS-2013-JFE BallastAce-001	JFE Engineering Corporation	associated filter housings	0	1	1	15-Oct-13
			MICROFADE models: MF-125, -250, -375, -500, -625, -750, -1000, -1250, -1500, -1750, -2000, -2250, -2500, -2750, -3000, -3250, -3500, -3750,				
23	AMS-2013-Kuraray MICROFADE-001	Kuraray Co., Ltd.	and -4000 with associated filter housings ARA-017, -028, -039, -063, -092, -126, -150, -	0	1	1	28-Oct-13
24	AMS-2013-SAMKUN ARA PLASMA-001	Samkun Century Co. Ltd	190, -230, -250, -300	0	1	1	28-Oct-13
			Wartsila AQUARIUS UV models AQ-50-UV, -80-UV, -125-UV, -180-UV, -250-UV, -300-UV, -375-UV, -430-UV, -500-UV, -550-UV, -750-UV, -850-UV, and -1000-UV, with capacities up to 6000 m3/h achieved by using multiple units in				
25	AMS-2013-Wartsila AQUARIUS UV-001	Wartsila Water Systems, Ltd.	parallel Associated filter models BS- BallastMaster Ultra V 250 model and	1	1	1	28-Oct-13
26	AMS-2013-GEA Westfalia BallastMaster-001	GEA Westfalia Separator Group	associated filter units	0	1	1	11-Nov-13
27	AMS-2013-Jiangsu Nanji NiBallast-001	Jiangsu Nanji Machinery Co., Inc.	NiBallast models NB-200, NB-300, NB-400, NB-500, NB-600, NB-800, NB-1000, NB-1200, NB-1500, NB-1800, NB-2000, NB-2500, NB-3000, NB-4000, NB-5000 and associated filter units	1	1	1	15-Nov-13
			Blue Ocean Shield BWTS models BOS02 and BOS05 with treatment rated capacities of 100				
28	AMS-2013-COSCO BOS-001	Cosco, Inc.	to 3,500 cubic meters/hour (m3/hr) VOS models VOS-500 to -6000 with ballast water treatment rated capacities of 100 to	0	1	1	19-Nov-13
29	AMS-2013-NEI VOS-001	NEI Treatment Systems, LLC	6,500 cubic meters/hour (m3/hr) AquaStar Models H-200, -200S, -250, -300, -	1	1	1	16-Dec-13
30	AMS-2014-AquaStar-001	Aqua Engineering, Inc.	350, -450, -550, -650, -700, and -750 AquaStar -EX Models H-200S-EX, -300-EX, -350-	0	1	1	07-Jan-14
31	AMS-2014-AquaStar-002	Aqua Engineering, Inc.	EX, and -650-EX	0	1	1	07-Jan-14
32	AMS-2014-Auramarine CrystalBallast-001	Aura Marine, Inc.	CrystalBallast Models CB75 and CB250 Smart Ballast Models SB-EC300, -EC600, -	0	1	1	07-Jan-14
33	AMS-2014-STX Smart Ballast-001	STX Heavy Industries Co., Ltd.	EC800, and –EC1000 OPS-50, -100, -150, -200, -250, -300, -350, -400, -500, -600, -700, -750, -800, -900, -1000, -1100, -	0	1	1	07-Jan-14
34	AMS-2014-MAHLE OPS-001	Filtration Group GmbH	1250, -1500, -1750, and -2000, with associated filters	0	1	1	12-Feb-14

No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	Freshwater (< 1 PSU) (0 = No, 1 = Yes)	Brackish Water (10-20 PSU) (0 = No, 1 = Yes)	Marine Water (28 -36 PSU) (0 = No, 1 = Yes)	Acceptance Date
35	AMS-2014-Knutsen KBAL-001	Knutsen OAS Shipping AS	Knutsen KBAL BWTS models BWTS200 and -600, with treatment rated capacities (TRC) of 200 and 600 cubic meters per hour (m³/hr) BIO-SEA® models: BIO-SEA®100, -200, -300, -400, -500, -600, -700, -800, -900, -1000, -1100, -1200, -1300, -1400, -1500, -1600, -1700, -1800, -1900, and -2000 with treatment rated	0	1	1	03-Mar-14
36	AMS-2014-BIO-UV BIO-SEA-001	BIO-UV SAS	capacities (TRC) of 100 to 2,000 cubic meters per hour (m³/hr). EcoBallast models -360,-600, -700,-720, and -1000 and associated filter housings, UV	0	1	1	04-Mar-14
37	AMS-2014-Hyundai EcoBallast-001	Hyundai Heavy Industries, Inc.	reactors, and cleaning unit JFE BallastAce 4500 with Treatment Rated Capacity from 17.5 thru 4500 m3/h, and	0	1	1	04-Mar-14
38	AMS-2013- JFE BallastAce-001	JFE Engineering Corporation	associated filter housings MacGregor-AquaStar Models H-150, H-200, - 200S, -250, -300, -350, -450, -550, -650, -700,	0	1	1	14-Apr-14
39	AMS-2014-MacGregor-AquaStar-001	Aqua Engineering, Inc.	and -750 MacGregor-AquaStar -EX Models H-200S-EX, -	0	1	1	23-May-14
40	AMS-2014-MacGregor-AquaStar-002	Aqua Engineering, Inc.	300-EX, -350-EX, and -650-EX Purimar Models SP-25, SP-25(Ex), SP-50, SP- 50(Ex), SP-75, SP-75(Ex), SP-100, SP- 100(Ex), SP-150, SP-150(Ex), SP-200, SP- 200(Ex), SP-250, SP-250(Ex), SP-300, SP- 300(Ex), SP-350, SP-350(Ex), SP-400, SP- 400(Ex), SP-450, SP-450(Ex), SP-500, SP- 500(Ex), SP-550, SP-550(Ex), SP-600, SP-	0	1	1	23-May-14
41	AMS-2013-Samsung Purimar-001	Samsung Heavy industries, Inc.	600(Ex), SP-650, SP-650(Ex)	0	1	1	23-May-14
42	AMS-2014-Alfa Laval-PureBallast-003	Alfa Laval Yumba AB	PureBallasts 3.0 models: 300, 600, 1000	0	1	1	04-Jun-14
43	AMS-2014-Alfa Laval-PureBallast-004	Alfa Laval Yumba AB	PureBallasts 3.0 Ex models: 300, 600, 1000 OceanDoctor models HBS-250, HBS-500, HBS- 1000, HBS-1500, HBS-2000, HBS-2500, HBS-	0	1	1	04-Jun-14
44	AMS-2014-Jiujiang OceanDoctor-001	Jiujiang Precision Measuring Technology Shanghai Cyeco Environmental	3000, HBS-3500, HBS-4000, HBS-500 B200, B250, B300, B400, B500, B600, B750, B800, B1000, B1200, B1500, B2000, B3000,	0	1	1	06-Jun-14
45	AMS-2014-Shanghai Cyeco-001	Technology Co., Ltd.	B4000, B5000, B6000	0	1	1	03-Jul-14
46	AMS-2014-Trojan Marinex-001	Trojan Technologies	Trojan Marinex model 150, 250, and 500	1	1	1	21-Jul-14
	·	, ,	Hyde GUARDIAN models HG60, -100, -150, - 200, -250, -300, -400, - 450, -500, -600, -700, - 800, -900, -1000, -1250, -1350, -1400, -1488, -				
47	AMS-2013-Hyde-Guardian-001	Hyde Marine Inc.	1600, -2000, -2500, -2975, -4000, -5000, -6000	0	1	1	21-Aug-14
48	AMS-2014-Shanghai Hengyuan-001	Shanghai Hengyuan Marine Equipment (Model HY-BWMS-200 MES FineBallast models: MF-05, MF-10, MF-15, MF-20, MF-25, MF-30, MF-40, MF-50, MF-60,	0	1	1	02-Sep-14
49	AMS-2014-MES FineBallast MF-001	Mitsui Engineering & Shipping Co., Ltd	MF-70, MF-80, MF-90	0	1	1	15-Sep-14

				Freshwater (< 1 PSU)	Brackish Water (10-20 PSU)	Marine Water (28 -36 PSU)	Acceptance
No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	Date
			Evoqua SeaCURE models: SC-300-800/1, SC-				
			500-800/1, SC-800-800/1, SC-300-800/2, SC-600-800/2, SC-800-800/2, SC-1000-1000/1, SC-				
			1000-1000/2, SC-1500-1, SC-2000-2500/1, SC-				
			2250-2500/1, SC-2500-2500/1, SC-2000-				
			2500/2, SC-2400-2500/2, SC-2500-2500/2, SC-				
			2750/1, SC-3000/1, SC-300/2, SC-4000/1, SC-				
50	AMS-2014-Evoqua SeaCURE-001	Evoqua Water Technologies LLC	4000/2	1	1	1	02-Oct-14
	7.1.10 2011 210qua 00000112 001	zvodaa vater resimereBres zze	AQ-250-EC, AQ-300-EC, AQ-375-EC, AQ-430-EC,	-	-	_	02 000 1
			AQ-500-EC, AQ-550-EC, AQ-750, AQ-850, AQ-				
			1000, AQ-1200, AQ-1500, AQ-2000, AQ-2400,				
51	AMS-2014-Wartsila Aquarius EC-001	Wartsila Water Systems, Ltd.	AQ-3000, AQ-3300	0	1	1	02-Oct-14
	4	,	Elite Marine Seascape model: Seascape-250-				
52	AMS-2014-Elite Marine Seascape-001	Elite Marine Corp.	BWMS	0	1	1	03-Oct-14
	·	•					
			MICROFADE models: MF-125, -250, -375, -500, -				
			625, -750, -1000, -1250, -1500, -1750, -2000, -				
			2250, -2500, -2750, -3000, -3250, -3500, -3750,				
53	AMS-2013-Kuraray MICROFADE-001	Kuraray Co., Ltd.	and -4000 with associated filter housings	0	1	1	10-Oct-14
			Cathelco BWTS models: A1, A2, A4, A6, A8,				
54	AMS-2014-Cathelco-001	Cathelco, Ltd.	A10, A12	1	1	1	07-Nov-14
			Optimarin Ballast System Ex and non-Ex				
55	AMS-2013-Optimarin Ballast System-001	Optimarin AS	(multiple models)	0	1	1	07-Nov-14
			Miura models: HK-200(E), HK-300(E), HK-				
56	AMS-2014-Miura-001	Miura Co., Ltd.	400(E), HK-6000(E)	0	1	1	21-Nov-14
			ECOMARINE modes: EU-100, EU-200, EU-250,				
			EU-350, EU-500, EU-600, EU-750, EU-850, EU-				
57	AMS-2014-Sumitomo ECOMARINE-001	Sumitomo Electric Industries, Ltd.	1000	0	1	1	01-Dec-14
			HiBallast System HiB-75, HiB-150, HiB-225, HiB-				
			300A, HiB-300B, HiB-500, HiB-600,				
			HiB-900, HiB-1000, HiB-1200, HiB-1200, HiB-	_	_	_	
58	AMS-2013-Hyundai-HiBallast-001	Hyundai Heavy Industries, Inc.	1500, HiB-2000	0	1	1	05-Dec-14
			HiBallast-EX System HiB-75-Ex, HiB-150-Ex, HiB-				
			225-Ex, HiB-300A-Ex, HiB-300B-Ex, HiB-500-Ex,				
			HiB-600-Ex, HiB-900-Ex, HiB-1000-Ex, HiB-1200-				
ΕO	ANAS 2012 Huundai HiBallast EV 001	Huundai Haavu Industrias Ins	Ex, HiB-1500-Ex, HiB-2000-Ex and associated	0	1	1	0F Doc 14
59	AMS-2013-Hyundai-HiBallast-EX-001	Hyundai Heavy Industries, Inc.	filter housing	0	1	1	05-Dec-14
			EcoBallast models -360,-600, -700,-720, and - 1000 and associated filter housings, UV				
60	AMS-2014-Hyundai EcoBallast-001	Hyundai Heavy Industries, Inc.	reactors, and cleaning unit	0	1	1	05-Dec-14
00	ANIO 2014 Tryunidai Ecobaliast-001	Tryanida Heavy muusules, me.	reactors, and cicaning unit	J	1	1	03-060-14

No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	Freshwater (< 1 PSU) (0 = No, 1 = Yes)	Brackish Water (10-20 PSU) (0 = No, 1 = Yes)	Marine Water (28 -36 PSU) (0 = No, 1 = Yes)	Acceptance Date
			CleanBallast Models: -150, 150-SF, -200, -200-SF, -250, -250-SF, -300, -300-SF, -350, -350-SF, -400, -400-SF, -450, -450-SF, -500, -500-1, -500-SF, -750, -750-SF, -1000, -1000-SF, -1250, -1250-SF, -1500, -1500-SF, -1750, -1750-SF, -2000, -2000-SF, -2250, -2250-SF, -2500, -2500-SF, -2750, -2750-SF, -3000, -3000-SF, -3250, -3250-				
61	AMS-2013-RWO-CleanBallast-001	RWO Marine Water Technology Group	SF, -3500, -3500-SF, -3750, and -3750-SF DESMI RayClean models: 100,200,300,400,500,600,700,800,900,1000,11 00,1200,1300,1400,1500,1600,1700,1800,1900 ,2000,2100,2200,2300,2400,2500,2600,2700,2	0	1	1	05-Dec-14
62	AMS-2015-DESMI RayClean-001	Desmi Ocean Guard AS	800,2900,3000	1	1	1	30-Jan-15
63	AMS-2015-Bawat-001	Bawat Inc.	Bawat ballast water treatment system	1	1	1	12-Feb-15
64	AMS-2013-PANASIA-GloEn-Patrol-001	Panasia Co., Ltd	GloEn-Patrol models P50, P150, P-150-Ex, P250, P250-Ex, P300, P300-Ex, P350, P350-Ex, P500, P500-Ex, P700, P700-Ex, P750, P750-Ex, P800, P-800-Ex, P900, P900-Ex, P1000, P1000-Ex, P1200, P1200-Ex, P1500, P1500-Ex, P2000, P2000-Ex, P2500, P2500-Ex, P3000, P3000-Ex, P3500, P3500-Ex, P4000, P4000-Ex, P4500, P4500-Ex, P5000, P5000-Ex, P6000 P6000-Ex with associated filter housings Purimar Models SP-25, SP-25(Ex), SP-50, SP-50(Ex), SP-75, SP-75(Ex), SP-100, SP-100(Ex), SP-150, SP-150(Ex), SP-200, SP-200(Ex), SP-250, SP-250(Ex), SP-350(Ex), SP-350(Ex), SP-350(Ex), SP-500(Ex), SP-550, SP-550(Ex), SP-600, SP-600(Ex), SP-650, SP-650(Ex), SP-700, SP-700(Ex), SP-800, SP-800(Ex), SP-900, SP-900(Ex), SP-1000, SP-800(Ex), SP-900, SP-900(Ex), SP-1000, SP-800(Ex), SP-900, SP-900(Ex), SP-1000, SP-	0	1	1	12-Feb-15
65	AMS-2013-Samsung Purimar-001	Samsung Heavy industries, Inc.	1000(Ex)	0	1	1	12-Feb-15
66	AMS-2015-PACT Marine-001	PACT Environmental Technology Co., Ltd	PACT Marine model P-300 OceanGuard BWTS models HMT-50, HMT-50E, HMT-100, HMT-100E, HMT-200, HMT-200-E, HMT-300, HMT-300E, HMT-450, HMT-450E, HMT-600, HMT-600E, HMT-800, HMT-800E, HMT-1000, HMT-1000E, HMT-1200, HMT- 1200E, HMT-1500, HMT-1500E, HMT-2000, HMT-2000E, HMT-2500, HMT-2500E, HMT-	0	1	1	20-Mar-15
67	AMS-2013-Headway-OceanGuard-002	Qingdao Headway Technology Co., Ltd.		0	1	1	20-Mar-15

				Freshwater (< 1 PSU)	Brackish Water (10-20 PSU)	Marine Water (28 -36 PSU)	Acceptance
No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	Date
			ERMA FIRST ESK BWTS models: 50, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2200, 2300, 2400, 2500,				
68	AMS-2013-ERMA FIRST BWTS-001	Erma First ESK Engineering Solutions SA	2600, 2700, 2800, 2900, 3000 JFE BallastAce 4500 with Treatment Rated Capacity from 17.5 thru 4500 m3/h, and	1	1	1	31-Mar-15
69	AMS-2013-JFE BallastAce-001	JFE Engineering Corporation	associated filter housings ARA-017, -028, -039, -063, -092, -126, -150, -	1	1	1	31-Mar-15
70	AMS-2013-SAMKUN ARA PLASMA-001	Samkun Century Co. Ltd	190, -230, -250, -300 PureBallasts 3.0 Ex and 3.1 Ex Models: 250, 300, 500, 600, 750, 1000, 1200, 1500, 1750,	0	1	1	15-Apr-15
71	AMS-2014-Alfa Laval-PureBallast-004	Alfa Laval Yumba AB	2000, 3000	0	1	1	20-Apr-15
			GLD (Gas Lift Diffuser) Models 100,150, 200, 250, and 300; Associated SeaGuardian IGG (Inert Gas Generator) Models 500, 1000, 1500, 2000, 3000, 4000, 5000, and 6000; Associated GCT (Gas Cooling Tower) Models 500, 1000,				
72	AMS-2015-Coldharbour Marine-001	Cold Harbour Inc.	1500, 2000, 3000, 4000, 5000, and BalPure production models BP-6, BP-8, BP-12, BP-24, BP-32, BP-36, BP-48, BP-60,	0	1	1	16-Jun-15
73	AMS-2013-STDN-Balpure-001	DeNora Water Technologies, Inc. Zhejiang Yingpeng Marine Equipment	and BP-75 Zhejiang Yingpeng YP BWMS models YP-300, -	0	1	1	16-Nov-15
74	AMS-2015-YP-BWMS-001	Manufacturer Co., Ltd.	500, -800, -1200	0	1	1	16-Nov-15
			Kwang San BioViolet models BioViolet-150, -				
75	AMS-2015-KwangSan- BioViolet-001	Kwang San Co., Ltd.	250, -350, -500, -750, -1000, -1250, - 1500 BallastMaster Ultra V 250 model and	0	1	1	18-Nov-15
76	AMS-2013-GEA Westfalia BallastMaster-001	GEA Westfalia Separator Group	associated filter units	0	1	1	08-Jan-16
			Freshwater only in these models: Electro-Cleen models ECS-150B, Ex-ECS-150B, ECS-300B, Ex-ECS-300B, ECS-450B, ECS-450B, ECS-600B, Ex-ECS-600B, ECS-1000B, and Ex-ECS-1000B. Marineor Brackish in the following models: Electro-Cleen models ECS-150B, Ex-ECS-150B, ECS-300A, Ex-ECS-300A, ECS-300B, Ex-ECS-300B, ECS-450B, EX-ECS-300B, ECS-600A, Ex-ECS-600A, ECS-600B, ECS-600B, ECS-1000A,				
77	AMS-2015- Techcross Electro-Cleen-002	Techcross, Inc.	ECS-1000B, and Ex-ECS-1000B EcoGuardian models EGO130, 130-Ex, 250, 250-Ex, 350, 350-Ex, 500, 500-Ex, 800, 800-Ex, 1000, 1000-Ex, 1500, 1500-Ex, 2000, 2000-Ex, 2600, 2600-Ex, 3000, 3000-Ex, 4000, 4000-Ex, 6000,	1	1	1	08-Jan-16
78	AMS-2016-Hanla-EcoGuardian -001	Hanla IMS Co.	6000-Ex	0	1	1	22-Jan-16

				Freshwater (< 1 PSU)	Brackish Water (10-20 PSU)	Marine Water (28 -36 PSU)	Acceptance
No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	(0 = No, 1 = Yes)	Date
			VOS models VOS-500 to -6000 with ballast				
70	ANG 2042 NELVOS 004	NEL Transfer and Contains 11 C	water treatment rated capacities of 100 to	4	4	4	22-Jan-16
79	AMS-2013-NEI VOS-001	NEI Treatment Systems, LLC	6,500 cubic meters/hour (m3/hr)	1	1	1	22-Jan-10
			NiBallast models NB-200, NB-300, NB-400, NB-				
			500, NB-600, NB-800, NB-1000, NB-1200, NB-				
			1500, NB-1800, NB-2000, NB-2500, NB-3000,				
80	AMS-2013-Jiangsu Nanji NiBallast-001	Jiangsu Nanji Machinery Co., Inc.	NB-4000, NB-5000 and associated filter units	1	1	1	25-Jan-16
			Miura models: HK-200(E), HK-300(E), HK-				
81	AMS-2014-Miura-001	Miura Co., Ltd.	400(E), HK-6000(E)	1	1	1	16-Mar-16
			BIO-SEA® models: BIO-SEA® 30-50, 30-87, 60-				
			55, 60-87, 90-87, 100, -200, -300, -400, -500, -				
			600, -700, -800, -900, -1000, -1100, -1200, -				
			1300, -1400, -1500, -1600, -1700, -1800, -1900,				
82	AMS-2016-BIO-UV BIO-SEA-001	BIO-UV SAS	and -2000 with treatment rated capacities (TRC) of 100 to 2,000 cubic m	0	1	1	13-Jun-16
62	AIVIS-2010-BIO-UV BIO-3EA-001	BIO-UV SAS	BlueZone System DNS Models: 250, 500, 600,	U	1	1	13-Juli-10
			1000, 1500, 2000, 2400, 3000, 4000, 5000,				
83	AMS-2016-Sunbo-BlueZone-001	Sunbo Industries Co., Ltd.	6000	0	1	1	15-Jun-16
00	70 2010 0000 2.0020001	54.155 mass.res 551, 214.	PureBallast 3.0, 3.0Ex, 3.1, and 3.1Ex 3.1,	· ·	_	-	15 74 10
			models 87, 135, 170, 250, 300, 500, 600, 750,				
84	AMS-2016-Alfa Laval-PureBallast-001	Alfa Laval Yumba AB	1000, 1200, 1500, 1750, 2000, 3000	1	1	1	16-Jun-16
			Sky-Systems (multiple models) with treatment				
			rated capacities from 25 -34,000 cubic				
85	AMS-2016-NYK-SkySystem-001	Nippon Yuka Kogyo Company, Ltd.	meters/hour (m3/hr)	0	1	1	16-Jun-16
			Seasccape Models: 150, 250, 300, 500, 600,				
		-m	800, 1000, 1200, 1600, 1800, 2000, 2400, 3000,	_	_	_	
86	AMS-2016-Elite Marine Seascape-001	Elite Marine Corp.	3200, 4000, 5000	1	1	1	15-Aug-16
07	AMS-2014-Cathelco-001	Cathelco, Ltd.	Cathelco Mini Model, and Modes: A1, A2, A4, A6. A8, A10. and A12.	1	1	1	10 Can 16
87	AIVIS-2014-Cathelco-001	Catheleo, Etd.	P-200, -300, -500, -750, -1000, -1250, -1500, -	1	1	1	19-Sep-16
88	AMS-2016-PACT-Marine-001	PACT Environmental Technology Co., Ltd		0	1	1	20-Oct-16
00	7.1713 Zolo 17.tel Marine dol	The Environmental realmology co., Etc	HMT 50, 100, 200, 300, 450, 600, 800, 1000,	Ü	-	-	20 000 10
89	AMS-2016-Headway-OceanGuard-001	Qingdao Headway Technology Co., Ltd.		0	1	1	21-Oct-16
	,	, ,	Marinex Models 150, 150x, 250, 250x, 500,				
			500x, 750, 750x, 1000, 1000x, 1250, 1250x,				
90	AMS-2016-Trojan Marinex-001	Trojan Technologies	1500, 1500x	1	1	1	27-Oct-16
91	AMS-2016-KT MARINE-MARINOMATE-001	KT Marine Co., Ltd	MARINOMATE 300	0	1	1	15-Nov-16
			AHEAD I, AHEAD II, AHEAD III, AHEAD IV,				
0.2	ANAC 2046 AUEAD 004	About Occasi Taskaslassa Ca	AHEAD V, AHEAD VI, AHEAD VII, and AHEAD	0	4	4	20 Nov. 46
92	AMS-2016-AHEAD-001	Ahead Ocean Technology, Co.	VII	0	1	1	28-Nov-16
			BSKY Models: 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000,				
			1100,1200, 1300, 1400, 1500, 2000, 3000,				
93	AMS-2016- BSKY BWTS-001	Wuxi Brightsky Electronic Co., Ltd.	4000, 5000, 6000	0	1	1	2-Dec-16
		, ,	•				

No.	AMS_ID	Manufacturer	Description - Brand and Models Covered	Freshwater (< 1 PSU) (0 = No, 1 = Yes)	Brackish Water (10-20 PSU) (0 = No, 1 = Yes)	Marine Water (28 -36 PSU) (0 = No, 1 = Yes)	Acceptance Date
			Class Patral madala DEO DAEO DAEO Eu				
			GloEn-Patrol models P50, P150, P-150-Ex,				
			P250, P250-Ex, P300, P300-Ex, P350, P350-Ex,				
			P500, P500-Ex, P700, P700-Ex, P750, P750-Ex,				
			P800, P-800-Ex, P900, P900-Ex, P1000, P1000-				
			Ex, P1200, P1200-Ex, P1500, P1500-Ex, P2000,				
			P2000-Ex, P2500, P2500-Ex,P3000, P3000-Ex, P3500, P3500-Ex, P4000, P4000-Ex, P4500,				
			P4500-Ex, P5000, P5000-Ex, P6000 P6000-Ex				
94	AMS-2016-PANASIA- GloEn-Patrol-001	Panasia Co., Ltd	with associated filter housings	0	1	1	8-Dec-16
34	ANIS-2010-FANASIA- GIOLII-FAITOI-001	,	HBS-50, -150, -250, -350, -500, -650, -750, -800,	U	1	1	9-Dec-10
95	AMS-2016-Jiujiang OceanDoctor-001	Research Institute	-1000, -1300, -1500, -1600, -2000	0	1	1	12-Dec-16
))	ANIS 2010-stujiang OceanDoctor-001	Nescaren filstitute	KBAL BWMS150, KBAL BWMS200, KBAL	O	1	1	12-Dec-10
			BWMS600, KBAL BWMS2000, KBAL				
96	AMS-2016-Knutsen KBAL-001	Knutsen OAS Shipping AS	BWMS3000	0	1	1	12-Dec-16
30	AND 2010 KINGSEN KBAL 001	Matsen on Sampping 115	OPS-50, -100, -150, -200, -250, -300, -400, -500,	Ü	-	-	12 000 10
			-600, -700, -750, -800, -900, -1000, -1100, -				
97	AMS-2014-MAHLE OPS-001	Filtration Group GmbH	1250, -1500, -1750, -2000	0	1	1	20-Jan-17
			,,				
			C2E-S, C2E-M, C2E-L (multiple models of each),				
98	AMS-2013-OceanSaver MK II-001	OceanSaver AS	C2E-200 through C2E-7200 (multiple models)	0	1	1	22-Jan-17
			BOS05 models -200 through -3000, and -				
99	AMS-2017-COSCO BOS-001	Cosco, Inc.	200-Ex through -3000-Ex	0	1	1	22-Mar-17
			HMT 50, 100, 200, 300, 450, 600, 800, 1000,				
100	AMS -2017-Headway-OceanGuard-001	Qingdao Headway Technology Co., Ltd.	1200, 1500, 2000, 2500, 3000, 4000	0	1	1	24-Mar-17
			BWMS 50, 100, 150, 300, 370, 450, 500, 600,				
101	AMS-2017-MMC Green-001	MMC Green Technology AS	750, 1000, 1400	1	1	1	28-Apr-17



California State Lands Commission Marine Invasive Species Program Ballast Water Treatment Technology Annual Reporting Form Public Resources Code Section 71205(g) July 1, 2010

Ves	Vessel Name:									
Off	Official / IMO Number:									
Re	Responsible Person's Name and Title:									
Da	Date Submitted (DD/MM/YYYY):									
Tre	Treatment System Information									
1.	List the treatment sys	tem installed	on board	the vessel:						
	Manufacturer/Compa	ny:								
	Product Name:									
	Model Number:									
	1a. Mode(s) of Action (check all that apply):									
	Filtration	Cavitation [Hydrocyclone		Deoxygenation				
_	Active Substance/Bio	cide 🗌	Ultra Viol	let Irradiation	Не	at 🗌				
_	Other, please des	cribe:			I					
L	1b. List all substance or used by the treatm Data Sheet is kept or	ent system (i	f any), and	d indicate whether or						
	Substance			MSDS on Board?		_				
				Yes No No No	I/A L					
Yes No N/A										
	Yes No N/A									
Yes No N/A										
ŀ				Yes No No	I/A [
				Yes No No	I/A [
-	N/A No substa	nces used h	/ system							

	Official/IMO Number:								
	1c. Are manufacturer's technical guides, publications and/or manuals for the treatment system kept on board? Yes $\hfill\square$ No $\hfill\square$								
2.	When did the system installation receive classification society approval? Date (DD/MM/YYYY):								
3.	B. Did the system installation occur (check all that apply): As part of a scheduled out of water dry docking? During a special/non-routine out of water dry docking? Without the need for out of water dry docking? Yes No								
 Has there been any significant upgrade/modification to the system since classification approval? (Do not include repairs. See instructions for more information and definition significant.) 									
	Yes Date of Upgrade (DD/MM/YYYY):								
Describe upgrade:									
	No _								
5. Has any unscheduled or emergency maintenance been performed on the system since classification society approval (or since the previously submitted Ballast Water Treatment Technology Annual Reporting Form)?									
	Yes Date of Most Recent Event (DD/MM/YYYY):								
	Describe most recent maintenance event:								
	No								
6.	Is the vessel in compliance with the requirement to maintain a ballast water treatment performance log on board? (This log may be incorporated into the existing ballast water management log. See form instructions for minimum requirements). Yes \(\subseteq \text{No} \subseteq \)								
7.	Is system performance (i.e. biological efficacy) verified on a regular basis? Verification is not a requirement by the State of California, however, regular performance testing will allow the vessel to ensure the system is working properly.								
	Yes								
	How often: Weekly Monthly Yearly Every 2 years Other, describe:								
	No \square								

California State Lands Commission Marine Invasive Species Program Ballast Water Treatment Technology Annual Reporting Form Public Resources Code Section 71205(g) July 1, 2010 Instructions for Completing Annual Reporting Form

BALLAST WATER TREATMENT TECHNOLOGY ANNUAL REPORTING FORM TO BE SUBMITTED <u>ANNUALLY</u> BY VESSELS THAT HAVE A BALLAST WATER TREATMENT SYSTEM INSTALLED ON BOARD, AND HAVE OR WILL BE DISCHARGING TREATED BALLAST IN WATERS OF THE STATE

FORM MUST BE SUBMITTED within 60 days of receiving a written or electronic request from the Commission

SUBMIT THE COMPLETED FORM TO:

California State Lands Commission Marine Facilities Division 200 Oceangate, Suite 900 Long Beach, CA 90802 FAX: 562-499-6444

Email: bwform@slc.ca.gov

Treatment System Information

Question 1: Provide the requested information for each ballast water treatment installed on the vessel. **NOTE**: If more than one treatment system is installed on board the vessel, the form must be filled out separately for each system.

- List the system manufacturer or company (For example Acme Incorporated).
- List the product name, if applicable (For example Acme Ballast Water Treatment System).
- List the model number, if applicable (For example Acme Model # 5454). Do not provide the serial number.
- Question 1a. Check ALL appropriate boxes that describe the mode(s) of action
 that the system uses to treat ballast water. For example, if the system first filters
 the water and then uses ultraviolet radiation, check both "filtration" and
 "ultraviolet irradiation." If the system uses a mode of action not described, check
 "Other" and then describe the mode of action.
- Question 1b. If applicable, please provide the name(s) of <u>all</u> substances (chemicals or biocides that kill or inactivate organisms in ballast water, flocculating agents, and/or neutralizing agents) manufactured by or associated with the use of the ballast water treatment system (e.g. hypochlorite, sodium bisulfate...). If no substances are used by the system, check "N/A" and move to Question 1c. Some systems may use multiple substances. Please list all of them.

Refer to the Material Safety Data Sheets (MSDS) as necessary to answer this question. Additionally, indicate whether or not the MSDS is kept on board for each substance, if applicable.

 Question 1c. Check the appropriate box to indicate if the vessel maintains the ballast water treatment system manufacturer's technical guides, publications and/or manuals on board.

Question 2: Indicate the date (DD/MM/YYYY) when the ballast water treatment system installation received classification society approval for operation on the vessel.

Question 3: Please mark "yes" or "no" for each of the following:

- Was the ballast water treatment system installed during the regularly scheduled out of water dry docking of the vessel (For example - in conjunction with a dry docking scheduled for a classification society inspection or hull maintenance/repair)?
- Did the vessel require a special (non-routine) out of water dry docking that was scheduled exclusively for the installation of the ballast water treatment system?
- Was the ballast water treatment system installed without the need for out of water dry docking (For example - while the vessel was still in the water or while underway)?

Question 4: Since receiving classification society approval, has the ballast water treatment system been "significantly" modified or upgraded. For the purposes of this question, "significant" means a modification to the system:

- Which changes its volumetric capacity to treat ballast water by 15 percent or greater; or
- Which changes the mode of action of the treatment system; or
- Which is projected to prolong the life of the ballast water treatment system by 10 years or more; or
- Which results in a modification to the ballast water treatment system other than component replacement-in-kind.

If the answer is "Yes" to ANY of the bullets above, then check "Yes" and fill in information for date of upgrade and generally describe the nature and extent of the update/modification to the ballast water treatment system. (For example - Filtration unit was enlarged to handle 20% more capacity of incoming ballast water).

If the answer is "No" to ALL of the bullets above, check "No" and proceed to Question 5.

Question 5: Check the appropriate box to indicate whether or not the system has undergone any unscheduled or emergency maintenance since the system was commissioned.

- If "Yes" was selected, describe the most recent emergency or unscheduled maintenance event. What type of malfunction occurred? How was it addressed? Provide the date (or dates) of when this event occurred.
- If "No" was selected, proceed to Question 6.

Question 6: Check the appropriate box to indicate whether the vessel is in compliance with the requirement to maintain a ballast water treatment performance log on board. The ballast water treatment performance log may be maintained as part of the ballast water management log or as an independent document.

At a minimum, the ballast water treatment performance log must include:

- The dates, times, and locations of the starting and stopping of the system for the purpose of treating ballast water.
- Dates, time and descriptions of any system malfunctions, including problem resolution.
- Dates, times and locations of both scheduled and unscheduled maintenance of the system.
- All relevant measures of system performance recorded during system operation.
 For example UV transmittance, residual chemical concentration.

Question 7: Check the appropriate box to indicate whether system performance (i.e. biological efficacy) is verified (either by the vessel, the system manufacturer or a third party organization) on a regular basis. The State of California does not require vessels to conduct system performance verification, however, regular performance testing will allow the vessel to ensure the system is working properly.

- If <u>"Yes"</u> was selected, check the appropriate box to indicate the frequency with which the performance/efficacy of the ballast water treatment system is verified. If the system is verified on a different schedule, check "Other" and describe that schedule.
- If system performance verification is not conducted, select "No."



Vessel Information

Official/IMO Number:

Ballast Water Treatment

Yes ___, please provide the following information:

Vessel Name:

California State Lands Commission Ballast Water Treatment Supplemental Reporting Form

Public Resources Code Section 71205(g)
July 1, 2010

Voyage Information

Arrival Date (DD/MM/YYYY):

ALL VESSELS MUST ALSO SUBMIT BALLAST WATER REPORTING FORM

IS THIS AN AMENDED REPORTING FORM? Yes
No

Arrival Port:

	Date of	malfunction (DD/M	M/YYYY):								
	Explain the malfunction:										
	If applic	If applicable, how was the situation resolved?									
١	No 🗌										
		reatment History. F nk per line. If none,			allast tanks that wi	ll be discharg	ed at arrival բ	oort. Enter additiona	I tanks on		
		BW Source			BW Discharge			BW Treatment			
Tanks/ Holds	Date (DD/MM/YY)	Port or Lat-Long	Volume (Units)	Date (DD/MM/YY)	Port or Lat-Long	Volume (Units)	Date of 1st treatment (DD/MM/YY)	Date 2nd treatment (if applicable) (DD/MM/YY)	Volume Ballast Treated (Units)		
	Ballast	Water Tank Codes: Fo	repeak = FP, A	ftpeak = AP, Dou	uble Bottom = DB, W	ing = WT, Tops	ide = TS, Cargo	Hold = CH, Other = O			

3. Responsible Officer's Name and Title: _____

1. Did the treatment system experience any malfunction that affected the treatment of ballast water to be discharged at this arrival port?

Vessel IMO Number:	
--------------------	--

	BW Source			BW Discharge			BW Treatment		
Tanks/ Holds	Date (DD/MM/YY)	Port or Lat-Long	Volume (Units)	Date (DD/MM/YY)	Port or Lat-Long	Volume (Units)	Date of 1st treatment (DD/MM/YY)	Date 2nd treatment (if applicable) (DD/MM/YY)	Volume Ballast Treated (Units)
Ballast Water Tank Codes: Forepeak = FP, Aftpeak = AP, Double Bottom = DB, Wing = WT, Topside = TS, Cargo Hold = CH, Other = O									

California State Lands Commission Marine Invasive Species Program Ballast Water Treatment Supplemental Reporting Form Public Resources Code Section 71205(g) July 1, 2010

Instructions for Completing Supplemental Reporting Form

REMINDER: ALL VESSELS MUST SUBMIT BALLAST WATER REPORTING FORM

BALLAST WATER TREATMENT SUPPLEMENTAL REPORTING FORM TO BE SUBMITTED Upon departure from each port or place of call in California ONLY IF:

- Ballast Water Was Treated; AND
- Ballast Water Was Discharged Into California Waters

Vessels that have ballast water treatment systems and discharge treated ballast into California waters must also annually submit:

Ballast Water Treatment Annual Reporting Form

SUBMIT THE COMPLETED FORM(S) TO:

California State Lands Commission Marine Facilities Division 200 Oceangate, Suite 900 Long Beach, CA 90802 FAX: 562-499-6444

Email: <u>bwform@slc.ca.gov</u>

Question 1: Check the appropriate box to indicate whether the vessel or the ballast water treatment system experienced any malfunction or unexpected situation (For example - UV bulbs burned out) that may have impacted the treatment of ballast water to be discharged at this arrival port.

- If <u>Yes</u> is selected, enter the <u>date or dates</u> (DD/MM/YYYY) when the problem occurred, describe the problem (malfunction) and how (if applicable) the situation was resolved.
- If No is selected, proceed to Question #2.

Question 2: Provide information about each ballast water tank that underwent treatment and was subsequently discharged into California waters during this port visit. Do not submit information on tanks that were not discharged into California waters.

TANK

Please list **all tanks and holds** that you have discharged into California waters. Follow each tank across the page listing all source(s), discharge and treatment events separately.

List each tank on a separate line. Use an additional page if necessary, being careful to include IMO number at the top of the second page (if necessary).

For tanks with multiple sources: List each source on a separate line.

BW SOURCE

Date: Report date of ballast water uptake (DD/MM/YY).

Port or latitude/longitude: Report location of ballast water uptake. No abbreviations for ports.

Volume: Report total volume of ballast water uptake, with volume units.

BW DISCHARGE

Date: Record date of ballast water discharge (DD/MM/YY).

Port or latitude/longitude: Report location of ballast water discharge. *No abbreviations for ports.*

Volume: Report volume of ballast water discharged, with volume units.

BW TREATMENT

Date of 1st treatment: Indicate the date (DD/MM/YY) when ballast water treatment was initiated for that tank. If treatment occurred over several days, list the day when treatment began.

Date of 2nd treatment: If applicable, provide the date (DD/MM/YY) when secondary ballast water treatment occurred. (For example - If ballast water was treated with UV both on uptake and discharge, put the date of treatment on uptake in the 1st column and the date of treatment on discharge in the 2nd column).

Volume: For each tank to be discharged, report total volume of ballast water treated by the ballast water treatment system, *with volume units*.

Question 3: Enter the responsible officer's name and title.