

BW Treatment System Progress towards Full Type Approval - July 1 2010

Submitter	Sub No	Name	System	Treatment	GESAMP	Date	Basic/Final	Recommendation	MEPC	Date	Approval	Type Approval
Germany	1	PeracleanOcean	Chemical Add	Biocide	1	Jan-06	Basic	Grant	54	Mar-06	Granted	Mkt Withdraw
RoK	2	Electroclean	Electrochemical	Chlorine	1		Basic	Grant	54		Granted	
Japan	3	Ozone	Electrochemical	Ozone	2	May-06	Basic	Grant	55	Oct-06	Granted	
Rok	4	Ozone	Electrochemical	Ozone	2		Basic	Deny	55		Denied	
Sweden	5	EctoSys	Electrochemical	Chlorine	2		Basic	Grant	55		Granted	
Rok	6	NkO3	Electrochemical	Ozone	3	Mar-07	Basic	Grant	56	Jul-07	Granted	
Sweden/Norway	7	Pureballast	AOT	UV	3		Basic/Final	Grant	56		Granted	Jul-08
Japan	8	Hybrid BWTS	Electrochemical	Chlorine	3		Basic	Deny	56		Denied	
Rok	2*	Electroclean	Electrochemical	Chlorine	4	Nov-07	Final	Deny	57	Mar-08	Denied	
Germany	5*	CleanBallast	Electrochemical	Chlorine	4		Final	Deny	57		Denied	
Japan	9	ClearBallast	Flocculation	Flocculants	4		Basic	Grant	57		Granted	
S.Africa	10	Resourse BT	Cavit/Electrochemical	Cav/Ozone/Chlorine	5	Jan-08	Basic	Grant	57	Mar-08	Granted	
RoK	11	GloEn-Patrol	Filter/UV	UV	5		Basic	Grant	57		Granted	
Germany	1*	SEDNA	Chemical Add	Biocide	5		Final	Grant	57		Granted	Jul-08
Norway	12	Oceansaver	Combination	Nit/Cavitation/Chlor	5		Basic	Grant	57		Granted	
Japan	13	TG Ballastclean	Chemical Add	Chlorine	6	May-08	Basic	Grant	58	Oct-08	Granted	
Netherlands	14	Greenship	Electrochemical	Chlorine	6		Basic	Grant	58		Granted	
RoK	2*	ElectroClean	Electrochemical	Chlorine	6		Final	Grant	58		Granted	Dec-08
Norway	12*	Oceansaver	Combination	Nit/Cavitation/Chlor	7	Jul-08	Final	Grant	58	Oct-08	Granted	Apr-09
Germany	15	Ecochlor	Chemical Add	Chlorine	7		Basic	Grant	58		Granted	
RoK	6*	NKO3	Electrochemical	Ozone	7		Final	Deny	58		Denied	
Japan	3*	SP-Hybrid	SP/Electrochemical	Ozone	8	Feb-09	Final	Deny	59	Jul-09	Denied	
Germany	5*	CleanBallast	Electrochemical	Chlorine	8		Final	Grant	59		Grant	
RoK	6*	NKO3	Electrochemical	Ozone	8		Final	Grant	59		Grant	
China	16	BlueOceanShield	Sep/Filter/UV	UV	8		Basic	Grant	59		Grant	
RoK	17	EcoBallast	Filter/UV	UV	8		Basic	Grant Basic/Final	59		Grant FA	
Japan	9*	ClearBallast	Flocculation	Flocculants	9	Mar-09	Final	Grant	59	Jul-09	Grant	
Netherlands	14*	Greenship	Electrochemical	Chlorine	9		Final	Grant	59		Grant	
Germany	18	AquaTriComb	Filter/UV	US + UV	9		Basic	Grant	59		Grant	
RoK	11*	GloEn-Patrol	Filter/UV	UV	10	Sep-09	Final	Grant	60	Mar-10	Grant	
Germany	15*	Ecochlor	Chemical Add	Chlorine	10		Final	Deny	60		Denied	
Germany	19	SICURE	Electrochemical	Chlorine	10		Basic	Grant	60		Grant	

South Africa	10	Resourse BT	Cavit/Electrochemical	Cav/Ozone/Chlorine	10		Final	Grant	60		Grant
Denmark	20	Atlas	Filter/Electrochemical	Anolyte	11	Oct-09	Basic	Deny	60	Mar-10	Denied
Japan	13*	JFE-BWMS	Chemical Add	Chlorine	11		Final	Grant	60		Grant
China	21	Sunrui	Filter/Electrochemical	Sodium Hypochlorite	11		Basic	Grant	60		Grant
Denmark	22	DESMI	Filter/Ozone/UV	Ozone/UV	11		Basic	Grant	60		Grant
RoK	23	Blue Ocean Guard	Filter/Plasma/MPUV	Plasma/UV	11		Basic	Grant	60		Grant
RoK	24	HiBallast	Filter/Electrochemical	Sodium Hypochlorite	12	Dec-09	Basic	Grant	60	Mar-10	Grant
RoK	25	EnBallast	Filter/Electrochemical	Sodium Hypochlorite	12		Basic	Grant	60		Grant
Norway	26	OceanGuard	Filter/Electro/UV	Sodium Hypochlorite	12		Basic	Grant	60		Grant
Germany	27	BalPure	Electrochemical	Sodium Hypochlorite	12		Basic	Grant	60		Grant
RoK	28	IVWECO-Purima	Filter/Electrochemical	Sodium Hypochlorite	13	May-10	Basic		61	Oct-10	
RoK	29	AquaStar	Mech/Electrochemical	Sodium Hypochlorite	13		Basic		61		
Japan	3	SP-Hybrid	Filter/SP/Electro	Ozone	13		Final		61		
Japan	30	FineBallast MF	Filter/Membrane	H2O2 (Cleaning Agent)	13		Basic		61		
RoK	23*	ARA Ballast	Plasma/UV	N/A-MPUV	13		Final		61		
China	21*	BALCLOR	Filter/Electrochemical	Sodium Hypochlorite	13		Final		61		
Japan	31	Kuraray	Filter/Chemical	Calcium Hypochlorite	14	Jul-10	Basic		61?	Oct-10	
Norway	26*	OceanGuard 1M	Filter/Electro/UV	Sodium Hypochlorite	14		Final		61?		
Germany	15*	Ecochlor R	Chemical Add	Chlorine	14		Final		61?		
Germany	27*	Balpure R	Electrochemical	Sodium Hypochlorite	14		Final		61?		
Japan	32/1*	SPO-System	Filter/Chemical/SP	Biocide(Peraclean)	14		Final		61?		
Greece	33	Erma First	Filter/Electrochemical	Sodium Hypochlorite	14		Basic		61?		
Singapore	34	BlueSeas	Filter/Electrochemical	Sodium Hypochlorite	14		Basic		61?		
* denotes "repeat appearance"											
BW TREATMENT SYSTEMS RECEIVING TYPE APPROVAL WITHOUT IMO G9 APPROVAL											
Marshall Islands	NA	NEI VOS 2500	Venturi	Oxygen Stripping		NA				NA	Sep-08
United Kingdom	NA	Hyde Guardian	Filter/UV	UV		NA				NA	Apr-08