新排水基準に関するセミナーの詳細

コンプライアンス・アクション・プラン(CAP)の記載項目と排出基準把握手順について

環境天然資源省環境管理局(EMB)のレサ・アコーダ氏およびラグナ湖開発庁(LLDA)のエミテリオ・ヘルナンデス氏によると:

- 1. 企業はコンプライアンス・アクション・プラン (CAP) に以下 8 項目を記載する必要がある(フォーマットは不問)。
 - 1)企業概要
 - 2) 猶予期間が必要である理由
 - 3) 製造工程
 - 4) 現時点の自社の排水の状況と特性、および創業当初から現在まで EMB に対して提出した セルフ・モニタリング・レポートの内容に基づいたパラメーターの傾向
 - 5) 現在使用している排水処理施設の概要(例:容量、建設年月日、耐用年数など)
 - 6) 新排水基準を満たすために必要な現在使用している排水処理施設の近代化に係る計画の内容
 - 7) 猶予期間中に新排水基準を満たすために企業が計画する是正措置や改良に関するスケジュール
 - 8) コンプライアンス・アクション・プランを実行するために必要となる投資額およびその他関連 費用
- 2. また、各企業が満たすべき排出基準の把握手順は以下の1)~4)の通り。
 - 1)下記の表 1「業種ごとに遵守する必要がある排出物質」において、自社が該当する業種を 見つけた上で、当該業種が遵守する必要があるパラメーター(Significant Parameters)を特定 する。
 - 2) <u>環境天然資源省 HP</u> において、自社工場が位置する地域が 9 段階の水面基準のいずれに該当するかを確認する。
 - 3) 下記表 3「パラメーターおよび水面基準ごとの遵守すべき基準」において、遵守する必要があるパラメーター(Significant Parameters)ごとの排出基準が9段階の水面基準(手順2)ごとに示されている。
 - 4)9段階の水面基準(環境天然資源省HP)の定義は表3のとおり。

例えば、バタンガス湾に排水する繊維メーカーをケーススタディにすると、まず表 1 から繊維メーカー (PSIC コード:13)の遵守する必要があるパラメーター (Significant Parameters) は、Color、Temperature、pH、BOD、COD、Chromium、Phenol & Phenolic Substances、Oil and Grease、Surfactants、Ammonia、Trichloroethylene、Copper の 12 点であることが確認できる。次に、環境天

<u>然資源省 HP</u>において、バタンガス湾エリアの水面基準は"SC"であることが確認できる。最後に表2において、同社が遵守する必要があるパラメーター(Significant Parameters)12個のうち例えばCopper(銅)を例にすると、1リットルあたり0.04mgが新排水基準で規定されている基準であることが分かる。なお、表3において、バタンガス湾の水面基準SCの定義が確認できる。

表1. 業種ごとに遵守する必要がある排出物質の内容

https://pab.emb.gov.ph/wp-content/uploads/2017/07/DAO-2016-08-WQG-and-GES.pdf
排出物質(Significant Parameters)

PSICコード	- 1 - 1 -	排出物質(Significant Parameters)
	, Forestry and Fishing	
014	Animal production	BOD, Total Suspended Solids, Total Coliform (for Class B and SB), Ammonia, Phosphate
032 B. Mining and	Aquaculture (excluding fish pens)	BOD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate
	Mining of coal and lignite	Color, pH, Total Suspended Solids, Nitrate, Sulfate, Manganese, Iron, Arsenic, Cadmium,
	mining or ood! und ing.inco	Mercury, Lead
06	Extraction of crude petroleum and natural gas, and support activities	pH, Total Suspended Solids, Sulfate, Fluoride, Barium, Chromium, Nickel, Copper, Zinc, Mercury, Oil and Grease, Phenol & Phenolic Substances, Benzene, Toluene, Ethylbenzene,
07/00		Xylenes, Benzo(a)pyrene
07100 0722	Mining of iron ores	Color, pH, Total Suspended Solids, Nitrate, Manganese, Iron, Arsenic, Cadmium, Lead
0722	Mining of precious metal ores Gold ore mining	pH, Total Suspended Solids, Nitrate, Cyanide, Copper, Zinc, Arsenic, Mercury, Lead
	Silver ore mining	pH, Total Suspended solids, Nitrate, Cyanide, Copper, Zinc, Arsenic, Mercury, Lead
	Platinum ore mining	pH, Total Suspended Solids, Nitrate, Sulfaate, Cyanide, Manganese, Iron, Copper, Zinc,
07291	Copper ore mining	Arsenic, Cadmium, Mercury, Lead pH, Total Suspended Solids, Nitrate, Sulfate, Cyanide, Iron, Copper, Zinc, Arsenic,
		Cadmium, Mercury, Lead
07292	Chromite ore mining	pH, Total Suspended Solids, Nitrate, Chromium, Arsenic, Cadmium, Mercury, Lead
07293 07294	Manganese ore mining	pH, Total Suspended Solids, Nitrate, Manganese, Arsenic, Cadmium, Lead
08913	Nickel ore mining Pyrite mining	pH, Total Suspended Solids, Manganese, Arsenic, Cadmium, Lead, Nickel pH, Total Suspended Solids, Sulfate, Manganese, Iron, Copper, Arsenic, Lead
08914		pH, COD, Total Suspended Solids, Ammonia, Phosphate, Fluoride, Surfactants
C. Manufactur		p-1,
10110	Slaughtering and meat packing	Temperature, pH, BOD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Oil and
10120	Production processing and preserving of meat and meat products	Temperature, pH, BOD, Total Suspended Solids, Oil and Grease
1020	Processing and preserving of fish, crustaceans and mollusks (except	Temperature, pH, BOD, Total Suspended Solids, Nitrate, Oil and Grease
10205	Processing of seaweeds; manufacture of agar-agar or carrageenan	Temperature, pH, COD, Total Suspended Solids
1030	Processing and preserving of fruits and	Temperature, pH, BOD, Total Suspended Solids, Oil and Grease
104		Temperature, pH, BOD, Total Suspended Solids, Nitrate, Ammonia, Oil and Grease
105	fats Manufacture of dains products	Temperature, pH, BOD, Total Suspended Solids, Nitrate, Oil and Grease
106		Temperature, pH, GOD, Total Suspended Solids, Nitrate, Oli and Grease Temperature, pH, GOD, Total Suspended Solids, Nitrate
100	and starch products (except rice, corn, and	Temperature, pri, 000, Total ouspended dollas, Micrate
	cassava flour milling)	
10610		BOD, Total Suspended Solids
10621		BOD, Total Suspended Solids, Cyanide
107	Manufacture of other food products (except sugar)	Temperature, BOD, Total Suspended Solids, Oil and Grease
1072	Manufacture of sugar	
	Sugar milling	Temperature, pH, BOD, Total Suspended Solids, Nitrate
10000	Sugar refining	Temperature, pH, COD, Total Suspended Solids, Nitrate
10800	Manufacture of prepared animal feeds Manufacture of beverages	Temperature, pH, BOD, Total Suspended Solids, Nitrate, Ammonia, Oil and Grease Color, Temperature, pH, COD, Total Suspended Solids
12	Manufacture of beverages Manufacture of tobacco products	Color, Temperature, pH, COD, Total Suspended Solids Color, Temperature, pH, COD, Total Suspended Solids
13	Manufacture of textiles	Color, Temperature, pH, BOD, COD, Chromium, Phenol & Phenolic Substances, Oil and Grease, Surfactants, Ammonia, Trichloroethylene, Copper
14	Manufacture of wearing apparel	Temperature, pH, Surfactants, Color, COD
15110	Tanning and dressing of leather	Color, pH, COD, Total Suspended Solids, Total Coliform, Ammonia, Chloride, Chromium,
1001		Oil and Grease, Phenol & Phenolic Substances
1621	Manufacture of veneer sheets; manufacture of plywood, laminated board, particle board and other panels and board; wooden window	COD, Total Suspended Solids, Nitrate, Sulfate, Boron, Chromium, Copper, Arsenic, Benzo(a)pyrene
17012	and screens Pulp milling including manufacturing of pulp,	Color, Temperature, pH, COD, Total Suspended Solids, Nitrate, Phenol & Phenolic
	paper and paperboard	Substances, Sulfate, Phosphate, Ammonia
17013	Paper and paperboard milling	Color, Temperature, pH, COD, Total Suspended Solids, Nitrate, Phosphate, Ammonia, Barium, Boron, Chloride, Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Zinc
18110	Printing	Color, pH, COD, Total Suspended Solids, Cadmium, Chromium, Zinc, Oil and Grease
19100	Manufacture of coke oven products	Temperature, pH, COD, Total Suspended Solids, Ammonia, Sulfate, Cyanide, metals (except Arsenic and Barium), Oil and Grease, Phenol & Phenolic Substances, Polychlorinated Biphenyls, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene
19200	Manufacture of other fuel products	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Sulfates, Phosphate, Cyanide, Fluoride, Chloride, Chromium, Iron, Nickel, Copper, Zinc, Lead, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene, Phenol & Phenolic Substances
19900	Manufacture of other fuel products	Temperature, pH, COD, Total Suspended Solids, Oil and Grease
	Manufacture of ethanol	
	Manufacture of ethanol for: ● Food and beverage	Temperature, pH, BOD, Total Suspended Solids, Ammonia, Nitrate, Sulfate, Chloride
	● Fuel application	
		pH, COD
	Antiseptic	
204:5	Solvent (denatured)	
20112	Manufacture of industrial (compressed/liquefied) gases	Temperature, pH, COD, Nitrate, Sulfate, Chloride, Mercury, and metals depending on the catalysts used
	<u> </u>	Color, Temperature, pH, COD, Total Suspended Solids and other parameters depending
	basic chemicals Manufacture of alcohol expert othly alcohol	on the major chemical/s manufactured
20115	Manufacture of alcohol except ethly alcohol	Temperature, pH, COD, and metals depending on the catalysts used

PSICコード	業種	排出物質(Significant Parameters)					
20120	Manufacture of fertilizers and nitrogen compounds	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate, Fluoride, and metals depending on the catalysts used					
2013	Manufacturing of plastics and synthetic rubber in primary forms	Temperature, pH, COD, Ammonia, Sulfate, Cyanide, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene, Phenol & Phenolic Substances, and metals depending on the catalysts used					
20210	Manufacture of pesticides and other agro- chemical products	pH, COD, Total Suspended Solids, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Trichloroethylene, Malathion, Total Organochlorine Pesticides, and metals depending on the catalysts used					
2022, 20293	Manufacture of paints, ink, varnishes, and similar coating materials	Color, Temperature, pH, COD, Total Suspended Solids, Barium, Selenium, Chromium Nickel, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Phenol & Phenolic Substances, Trichloroethylene					
2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate Chloride, Fluoride, Boron, Selenium, Zinc, Oil and Grease, Surfactants					
20294	Manufacture of glues and adhesives Synthetic glues and adhesives	pH, COD, Cyanide, Zinc, Mercury, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Phenol & Phenolic Substances					
20299	Animal/plant derived glues and adhesives Manufacture of miscellaneous chemical	pH, COD, Boron, Chloride Color, pH, Temperature, COD, Total Suspended Solids, and other parameters depending					
2030	products, not elsewhere classified Manufacture of man-made fibers (except glass fibers)	on the major chemical/s manufactured Temperature, COD, Total Suspended Solids					
21001	Manufacture of drugs and medicines including biological products such as bacterial and virus vaccines, sera and plasma	pH, COD, Total Suspended Solids					
2310	Manufacture of glass and glass products	Color, Temperature, pH, Total Suspended Solids, Fluoride, Boron, Selenium, Arsenic, Lead, Oil and Grease					
239	Manufacture of ceramics, clay products, construction aggregates, asphalt, asbestos and other non-metallic minerals (except	Color, Temperature, pH, COD, Chromium, Copper, Zinc, Cadmium, Lead					
23940	Manufacture of cement	Temperature, pH, Total Suspended Solids					
241, 2431	Manufacture of iron and steel	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate, Fluoride, Chloride, Cyanide, Barium, Chromium, Manganese, Iron, Nickel, Zinc, Cadmium, Mercury, Lead, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes					
24210	Manufacture of precious metals	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Sulfate, Cyanide, Chloride, Boron, Chromium, Iron, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead, Oil and Grease, Phenol & Phenolic Substances					
24220	Non-ferrous smelting and refining, except precious metals	Temperature, pH, COD, Total Suspended Solids, Selenium, Manganese, Iron, Nickel, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead					
24230	Non-ferrous rolling, drawing, and extrusion mills	Temperature, pH, COD, Total Suspended Solids, Ammonia, Phosphate, Boron, Fluoride, Zinc, Arsenic, Cadmium, Chromium, Mercury, Lead, Cyanide, Phenol & Phenolic					
24240	Manufacture of pipe fittings of non-ferrous metal	Temperature, pH, COD, Total Suspended Solids, Ammonia, Phosphate, Boron, Fluoride, Zinc, Arsenic, Cadmium, Chromium, Mercury, Lead, Cyanide, Phenol & Phenolic Substances, Oil and Grease					
24290	Manufacture of basic precious and non- ferrous metal, not elsewhere classified	Temperature, pH, COD, Total Susepended Solids, Ammonia, Phosphate, Boron, Fluoride, Zinc, Arsenic, Cadmium, Chromium, Mercury, Lead, Cyanide, Phenol & Phenolic					
2431 2432	Casting/foundry of iron and steel Casting of Non-ferrous metal casting such	Temperature, pH, COD, Total Suspended Solids, Copper, Zinc, Oil and Grease Temperature, pH, COD, Total Suspended Solids, Sulfate, Fluoride, Iron, Copper, Zinc,					
25920	as aluminum, copper and zinc alloys Treatment, coating, and machining of metals	Arsenic, Cadmium, Chromium, Mercury, Lead pH, COD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate, Cyanide,					
261	Manufacture of electronic components	Fluoride, Boron, Chromium, Iron, Nickel, Copper, Zinc, Cadmium, Lead, Oil and Grease, pH, COD, Total Suspended Solids, Fluoride, Chloride, Boron, Oil and Grease,					
2720	Manufacture of batteries and accumulators	Trichloroethylene, and Metals depending on the major electronic components pH, COD, Total Suspended Solids, Fluoride, Selenium, Manganese, Iron, Nickel, Copper, Zinc, Cadmium, Mercury, Lead, Oil and Grease					
	Gas, Steam and Air Conditioning Supply	, ————————————————————————————————————					
35100	Electric power generation (except transmission						
	Coal Natural gas	Temperature, pH, COD, Total Suspended Solids, Phosphate, Sulfate, Chloride, Boron, Chromium, Nickel, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead, Oil and Grease Temperature, pH, COD, Total Suspended Solids, Phosphate, Chloride, Chromium, Zinc					
	Oil (Petroleum)	Temperature, pH, COD, Total Suspended Solids, Phosphate, Chloride, Chromium, Copper, Zinc, Arsenic, Cadmium, Lead, Oil and Grease					
	Geothermal	Temperature, pH, COD, Total Suspended Solids, Chloride, Boron, Chromium, Zinc, Arsenic, Cadmium, Mercury, Lead					
	Hydro	Oil and Grease					
35200	Manufacture of gas: distribution of gaseous	Temperature, pH, COD, Total Suspended Solids, and other parameters depending on the nature of the feedstock.					
35200	Manufacture of gas; distribution of gaseous fuels through mains	Temperature, pH, COD, Total Suspended Solids, Nitrate, Cyanide, Chloride, Chromium, Nickel, Zinc, Arsenic, Cadmium, Mercury, Lead, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene, Phenol & Phenolic Substances					
35300	Air conditioning supply and production of ice (except steam production)	Temperature, pH, COD, Ammonia, Nitrate, Phosphate, Sulfate, Chloride, Chromium, Zinc					
E. Water Supp 36000	bly; Sewerage, Waste Management and Remed						
	Water collection, treatment and supply (except those intended to prevent pollution)	pH, Total Suspended Solids, Chloride, Fluoride, Iron					
37000	Sewerage (operation of sewer systems or sewage treatment facilities that collect, treat, and dispose of sewage)	BOD, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants					
38210	Treatment and disposal of non-hazardous waste	Color, Temperature, pH, COD, Total Suspended Solids, Total Coliform, Ammonia, Nitrate, Phosphate, Sulfate, Chloride, Oil and Grease					
38220	Treatment and disposal of hazardous waste	Color, Temperature, pH, COD, Total Suspended Solids, and other parameters depending on the nature of their activities					
39000	Remediation activities and other waste management services	Color, Temperature, pH, COD, Total Suspended Solids and other parameters depending on the nature of remediation activitiy					
	and Retail Trade; Repair of Motor Vehicles a						
452, 454	Maintenance and repair of vehicles, their parts and components (excluding vulcanizing/tire related preparations)	Color, pH, Total Suspended Solids, Ammonia, Nitrate, Nickel, Cadmium, Mercury, Lead, Oil and Grease, Benzo(a)pyrene, Surfactants					
	[vulcariizing/ tire related preparations)	<u> </u>					

ジェトロ「ビジネス短信」添付資料

PSICコード	業種	排出物質(Significant Parameters)
47300, 4661		Total Suspended Solids, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes,
,		Benzo(a)pyrene
H. Transporta	tion and Storage	
52104	Cold storage	Color, Temperature, pH, COD, Total Suspended Solids, Ammonia, Oil and Grease
I. Accommoda	ation and Food Services	
55	Hotels, motels, resorts, dormitories, and	BOD, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants
	other accommodation services	
56	Restaurants, food chains, bars, and other	BOD, Total Suspended Solids, Oil and Grease, Surfactants
	food/beverage services	
L. Real Estate	e Activities	
681	Real estate activities with own or leased	BOD, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants
	property	
M. Profession	al, Scientific, and Technical Activities	
71200	Technical testing and analysis	All Significant Parameters depending on the nature of their activity
7210	Research and experimental development on	All Significant Parameters depending on the nature of their activity
	natural sciences and engineering	
75	Veterinary activities	Color, pH, COD, Total Suspended Solids, Fecal Coliform, Oil and Grease, Surfactants
P. Education		
85	Public and private education (including	BOD, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, and all Significant
	support activities)	Parameters depending on the nature of their activitiy
	alth and Social Works	
86, 87	Hospitals, clinics, nursing homes and other	Color, Temperature, pH, BOD, Total Suspended Solids, Fecal Coliform, Ammonia, Nitrate,
	human health and residential care activities	Phosphate, Oil and Grease, Surfactants
86900	Other human health activities - medical	All Significant Parameters depending on the nature of their activity
	laboratories inside and outside of medical	
	facilities	
S. Other Serv		
96210	Washing and dry cleaning of textile and fur	COD, Total Suspended Solids, Ammonia, Chloride, Barium, Oil and Grease, Surfactants,
	products	Trichloroethylene
96300	Funeral and related activities	COD, Total Suspended Solids, Total Coliform, Ammonia, Phosphate, Sulfate
Other Classifi		
OC1	Public markets	Color, Temperature, pH, BOD, Total Suspended Solids, Ammonia, Nitrate, Chloride, Oil
		and Grease
OC2	Scrubbing of flue gases from firing systems	Color, Temperature, pH, COD, Sulfate, Fluoride, Chromium, Nickel, Copper, Cadmium,
	(primarily in scrubbing of flue gases from	Mercury
	firing systems). This shall not apply to	
	wastewater from other industrial waste-gas-	
	scrubbing systems, from cooling circuits of	
	power solutions and industrial processes	
OC3	Effluent from oil water separators of	pH, Total Suspended Solids, Oil and Grease
	auxilliary facilities	
OC4	Effluent from cooling ponds, cooling towers,	Temperature, pH
	and similar facilities (non-contact cooling	
/ II I = r / + m + c	system)	

(出所)環境天然資源省HP(11~19ページのTable8)を基にジェトロ作成

表2. パラメーターおよび水面基準ごとの遵守すべき基準

https://pab.emb.gov.ph/wp-content/uploads/2017/07/DAO-2016-08-WQG-and-GES.pdf

	https://pab.ei	ilib.gov.p	II/ WP CO			er Body			a ana	aco.pui
パラメーター	Unit	AA	Α	B	C	D D	SA	SB	sc	SD
Physical Chemical		701					- O/ (<u> </u>		<u> </u>
Ammonia as NH ₃ -N	mg/L	NDA	0.5	0.5	0.5	7.5	NDA	0.5	0.5	7.5
BOD BOD	mg/L	NDA	20	30	50	120	NDA	30	100	150
Boron	mg/L	NDA	2	2	3	120	NDA	2	20	80
Chloride	mg/L	NDA	350	350	450	500	NDA	n/a	n/a	n/a
COD	mg/L	NDA	60	60	100	200	NDA	60	200	300
Color	TCU	NDA	100	100	150	300	NDA	100	150	300
Cyanide as Free Cyanide	mg/L	NDA	0.14	0.14	0.2	0.4	NDA	0.04	0.2	0.4
Fluoride	mg/L	NDA	2	2	2	4	NDA	3	3	6
Nitrate as NO ₃ -N	mg/L	NDA	14	14	14	30	NDA	20	20	30
pH (Range)		NDA	6.0-9.0		6.0-9.5	5.5-9.5	NDA	6.5-9.0	6.0-9.0	5.5-9.5
Phosphate	mg/L	NDA	1	1	1	10	NDA	1	1	10
Selenium	mg/L	NDA	0.02	0.02	0.04	0.08	NDA	0.02	0.2	0.4
Sulfate	mg/L	NDA	500	500	550	1,000	NDA	500	550	1,000
Surfactants (MBAS)	mg/L	NDA	2	3	15	30	NDA	3	15	30
Temperature ^(h)	°C Change	NDA	3	3	3	3	NDA	3	3	3
Total Supended Solids	mg/L	NDA	70	85	100	150	NDA	70	100	150
Metals	/-									
Arsenic	mg/L	NDA	0.02	0.02	0.04	0.08	NDA	0.02	0.04	0.08
Barium	mg/L	NDA	1.5	1.5	6	8	NDA	1.5	2	8
Cadmium Chromium as Hexavalent	mg/L	NDA	0.006	0.006	0.01	0.02	NDA	0.006	0.01	0.02
	/1	NDA		0.00	0.00	0.04	NID A	_ ,		
Chromium (Cr ⁶⁺)	mg/L	NDA NDA	0.02	0.02 0.04	0.02	0.04	NDA NDA	0.1 0.04	0.1 0.04	0.2 0.08
Copper as dissolved Iron	mg/L mg/L	NDA	0.04 5	5	0.04 7.5	0.08 35	NDA	7.5	7.5	35
Lead	mg/L	NDA	0.02	0.02	0.1	0.2	NDA	0.02	0.1	0.2
Manganese	mg/L	NDA	2	2	2	20	NDA	4	4	40
Mercury	mg/L	NDA	0.002	0.002	0.004	0.008	NDA	0.002	0.004	0.008
Nickel	mg/L	NDA	0.1	0.2	1	5	NDA	0.2	0.3	1.5
Zinc	mg/L	NDA	4	4	4	8	NDA	0.1	1.5	3
Organics			•					-	-	
Benzo(a)pyrene	μg/L	NDA	1.5	1.5	3	6	NDA	1.5	3	6
BTEX										
Benzene	mg/L	NDA	0.1	0.1	0.5	5	NDA	0.1	0.5	5
Toluene	mg/L	NDA	3.5	5	20	25	NDA	5	20	25
Ethylebenzene	mg/L	NDA	1.5	1.5	7.5	10	NDA	1	7.5	10
Xylenes	mg/L	NDA	5	5	15	18	NDA	5	15	18
Malathion	μg/L	NDA	1	1	3	6	NDA	1	3	6
(Organophosphate) Oil and Grease	mg/L	NDA	5	5	5	15	NDA	5	10	15
	μg/L	NDA	<0.1	<0.1	<0.1	<0.1	NDA	<0.1	<0.1	<0.1
Polychlorinated Biphenyls ⁽ⁱ⁾ Phenol & Phenolic	mg/L	NDA	0.01	0.01	0.5	5	NDA	0.01	0.5	5
Substances ^(j)	IIIg/ ∟	INDA	0.01	0.01	0.5	3	NDA	0.01	0.5]
Trichloroethylene	mg/L	NDA	0.7	0.7	9	20	NDA	0.7	9	20
Total Organochlorine	μg/L	NDA	<0.419	50	50	50	NDA	50	50	50
Pesticides ^(k)	µg/L	NDA	(0.413		30	30	NDA			
Aldrin	μg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Chlordane		NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
DDT	μg/L		<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Dieldrin	μg/L	NDA	<0.04		<0.04	<0.04	NDA	<0.04	<0.04	<0.04
	μg/L	NDA		<0.02	<0.02	<0.02				
Endrin	μg/L	NDA	<0.02	<0.02			NDA	<0.02	<0.02	<0.02
Heptachlor	μg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Lindane	μg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Methoxychlor	μg/L	NDA	<0.03	<0.03	<0.03	<0.03	NDA	<0.03	<0.03	<0.03
Toxaphene	μg/L	NDA	<0.03	<0.03	<0.03	<0.03	NDA	<0.03	<0.03	<0.03
Microbiological	MDN: /400 :	N.D.	1 4	000	400	000	NID 1	000	400	000
Fecal Coliform	MPN/100mL	NDA	4	200	400	800	NDA	200	400	800
Total Coliform	MPN/100mL	NDA	3,000	3,000	10,000	15,000	NDA	3,000	10,000	15,000

(出所)環境天然資源省HP(20~22ページのTable9)を基にジェトロ作成

表3. 水面基準(環境天然資源省資料)の定義

水面基準	定義
Class AA	Public Water Supply Class I – Intended primarily for waters having
	watersheds, which are uninhabited and/or otherwise declared as
	protected areas, and which require only approved disinfection to meet the
Class A	Public Water Supply Class II - Intended as sources of water supply
	requiring conventional treatment (coagulation, sedimentation, filtration and
	disinfection) to meet the latest PNSDW
Class B	Recreational Water Class I - Intended for primary contact recreation
	(bathing, swimming, etc.)
Class C	1. Fishery Water for the propagation and growth of fish and other aquatic
	resources
	2. Recreational Water Class II – For boating, fishing, or similar activities
	3. For agriculture, irrigation, and livestock watering
Class D	Navigable waters
Class SA	1. Protected Waters - Waters designated as national or local marine parks,
	reserves, sanctuaries, and other areas established by law (Presidential
	Proclamation 1801 and other existing laws), and/or declared as such by
	appropriate government agency, LGUs, etc.
	2. Fishery Water Class I – Suitable for shellfish harvesting for direct
	human consumption
Class SB	1. Fishery Water Class II – Waters suitable for commercial propagation of
	shellfish and intended as spawning areas for milkfish (Chanos chanos) and
	similar species
	2. Tourist Zones – For ecotourism and recreational activities
	3. Recreational Water Class I – Inteded for primary contact recreation
	(bathing, swimming, skin diving, etc.)
Class SC	1. Fishery Water Class III - For the propagation and growth of fish and
	other aquatic resources and intended for commercial and sustenance
	fishing
	2. Recreational Water Class II - For boating, fishing, or similar activities
Class SD	Navigable waters

(出所)環境天然資源省HP(4~5ページのTable1・2)を基にジェトロ作成