REPUBLIC OF THE MARSHALL ISLANDS

ENVIRONMENTAL PROTECTION AUTHORITY

MARINE WATER QUALITY

REGULATIONS

1992

INDEX

PART I - GENERAL PROVISIONS

1. *Authority*
2. *Purpose*
3. *Policy*
4. *Effective Date*
5. *Interpretation*
6. *Severability*

PART II - MARINE WATER USE CLASSIFICATION

7. *Class AA Waters*
8. *Class A Waters*
9. *Class B Waters*
10. *Classification Not Zoning*

PART III - ESTABLISHMENT OF MARINE WATER USE AREAS

11. *General*
12. *Majuro Atoll*
13. *Ebeye Island, Kwajalein Atoll*
14. *Gugeegue Island, Kwajalein Atoll*

PART IV - WATER QUALITY STANDARDS

15. *Basic Criteria Applicable to All Marine Waters*
16. *Specific Water Quality Criteria for Marine Waters*
17. *General Sampling Consideration*

PART V - MARSHALL ISLANDS POLLUTANT DISCHARGE ELIMINATION SYSTEM (MIPDES)

18. *Permit Requirement*
19. *Application Procedure*
20. *MIPDES Regulations*

PART VI - MIXING ZONES

21. *General Requirement*
22. *New Discharges*
23. *Mixing Zone Application Requirements*
24. *Existing Discharges*
25. *Determination by the Authority*
26. *False Information*

PART VII - POLLUTION CONTROL REQUIREMENTS

27. *General Requirement*
28. *Marine Sanitation Device*
29. *Sewage Discharge from Vessels*
30. *Hazardous Substances*

PART VIII - OIL POLLUTION PREVENTION MEASURES

31. *Spill Prevention Control and Countermeasure Plan*
32. *SPCC Plan Preparation Requirements*
33. *Containment Structures*
34. *Onshore Facility Drainage*
35. *Bulk Storage Tanks*
36. *Facility Transfer Operations*
37. *Facility Fuel Barge Loading and Unloading*
38. *Security*
39. *Spill Prevention*
40. *Prohibition on Discharge of Oil*

PART IX - ENFORCEMENT

41. *Violations*
42. *Public Hearing*
43. *Right to enter*
44. *Penalty for lack of permit*

REPUBLIC OF THE MARSHALL ISLANDS
ENVIRONMENTAL PROTECTION AUTHORITY

MARINE WATER QUALITY REGULATIONS

1992

PART I - GENERAL PROVISIONS

1. Authority

a) These regulations are promulgated by the Republic of the Marshall Islands Environmental Protection Authority with the approval of the Minister of Health Services pursuant to Section 21 of the National Environmental Protection Act 1984.

b) These regulations supersede all previous publications and repeal 63 Trust Territory Code Chapter 13, Subchapter VII, Marine and Fresh Water Quality Standard Regulations.

c) These regulations have the force and effect of law.

2. Purpose

The purpose of these regulations is to identify the uses for which the marine waters of the Republic of the Marshall Islands shall be maintained and protected, to specify the water quality standards required to maintain the designated uses, and to prescribe regulations necessary for implementing, achieving and maintaining the specified marine water quality.

3. Policy

It is the policy of the Republic that:

a) The maintenance of water quality that will provide for the propagation of aquatic life,

protection of marine resources, enhancement of human subsistence uses, and for recreation in and on the water is an historical and legitimate right of the people of the Marshall Islands.

b) Waters whose existing quality is better than the quality specified by these regulations shall be maintained at that high quality.

c) Waters whose existing quality is less than the quality specified by these regulations shall be improved to comply with these regulations.

d) No waters of the Republic shall be lowered in overall quality unless it has been affirmatively demonstrated to the Authority that such a change is a necessary result of economic or social development, is in the best interest of the people of the Republic, and will not permanently impair any marine resource or beneficial use assigned to the waters in question.

e) To the extent practicable, all new point sources of pollution shall not be to near-shore waters.

f) All sewage and waste will receive a degree of treatment necessary to protect the beneficial uses of the waters of the Republic before discharge.

4. Effective Date

These regulations shall come into force one day after their approval by the Cabinet.

5. Interpretation

In these regulations, unless the context otherwise requires:

a) "Authority" means the Republic of the Marshall Islands Environmental Protection Authority or its authorized representative.

b) "Beneficial uses" means a use of the environment that is conducive to public benefit, welfare, safety or health and which requires protection from the effects of wastes, discharges, emissions and deposits.

c) "Biota" means the animal and plant life of a particular region considered as a total ecological entity.

d) "Dilution Ratio" is the dilution ratio at the plume centerline after initial dilution.

e) "Environment" means the physical factors of the surroundings of human beings and includes the land, soil, water, atmosphere, climate, sound, odors, tastes and the biological factors of animals and plants of every description situation within the territorial limits of the Republic including the exclusive economic zone.

f) "Facility" means any building, structure, process, production equipment or machinery from which there is or may be a pollutant discharge. This definition excludes facilities or equipment used in connection with feasibility, engineering, and design studies regarding water pollution treatment.

g) "Initial Dilution" means the dilution that the wastewater has achieved with the receiving water as the centerline of the mixing zone as defined in Subregulation 5 (e) below where the mixture surfaces or the density of the mixture becomes equal to the density of the surrounding receiving water. The "initial dilution" will be calculated by using the procedure found in Users Guide and Documentation for Outfall Plume Model (D.J. Baumgartner, D.S. Trent, and K.V. Byram. Working Paper #80, USEPA, Pacific Northwest Water Laboratory, May 1971. Available at the Water Quality Laboratory of the Authority or by writing National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Order Number NTISPB 204-557.

h) "Marine Waters" means the internal waters and waters of the territorial sea of the Republic, and includes "near-shore waters", "off-shore waters", and all brackish, fresh and salt waters that are subject to the ebb and flow of the tide.

i) "Mixing Zone" means a defined area around a point source in which specific water quality criteria may be revised in accordance with Regulation. A zone of mixing is the volume water near the point of discharge within which the waste immediately mixes with ocean water due to the momentum of the waste discharge and the difference in density between the waste and the receiving water.

j) "Natural" means free of substances or conditions, or a combination

k) "Natural Conditions or Natural Occurring" means that state of water quality that would exist, at a specific time and place, in the absence of human activities.

l) "Near-Shore Waters" means those marine waters lying within a defined reef area, including but not limited to all lagoon waters within the Republic, and all coastal waters up to 1,000 feet off-shore where there is no defined reef area.

m) "Non-Point Source" means any origin from which pollutants emanate in an unconfined and uncancelled manner, including but not limited to surface and leachate seeps.

n) "Off-Shore Waters" means all marine waters beyond the limit defined for "near-shore" waters to the limits of the territorial sea of the Republic.

o) "Person" means any individual, corporation, company, association, partnership, agency, authority, commission, foundation, the Republic of the Marshall Islands government or its political subdivisions, or any local, state, or foreign government or municipality, or other institution or entity, whether public or private.

p) "Point Source" means any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well discrete fissure, container, vessel or other floating craft, from which pollutants are or amy be discharged.

q) "Pollutant" means dredged spoil, bilge water, petroleum and petroleum products, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical materials and wastes, biological materials and wastes, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, and agricultural waste.

r) "Pollutant Discharge" means either a point source or non-point source of pollutant discharged into marine waters.

s) "Pollution" means any direct or indirect alteration of the physical, thermal, chemical, biological or radioactive properties of any part of the marine waters of the Republic by the discharge, emission or deposit of wastes so as to affect any beneficial use adversely or to cause a condition which is hazardous or potentially hazardous to public health, safety or welfare, or to animals, birds, wildlife, aquatic life, marine resources or to plants of every description.

t) "Republic" means the Republic of the Marshall Islands.

u) "Territorial Sea" means that part of the sea within twelve (12) nautical miles from the baseline of the Republic, as set forth in the Marine Zones (Declaration) Act 1984.

v) "Waste" includes any matter whether liquid, solid, gaseous, or radioactive which is discharged, emitted or deposited in the environment in such volume, component or manner as to cause an alteration of the environment.

6. Severability

In the event any provision of these regulations or the application of any provision of these regulations to any person or circumstances is held invalid, the application of such provision to other persons or circumstances and the reminder of these regulations shall not be affected.

PART II - MARINE WATER USE CLASSIFICATION

7. Class AA Waters

a) The uses to be protected in this class of waters are oceanographic research, the support and propagation of shellfish and other marine life, conservation of coral reefs and wilderness areas, compatible recreation, and other aesthetic enjoyment.

b) This class of waters shall remain in as nearly their natural, pristine state as possible with an absolute minimum of pollution from any source. to the extent possible, the wilderness character of such areas shall be protected.

c) No point source discharge or zone of mixing shall be permitted in these waters, nor shall destruction of reefs, aquatic life, aquatic habitats, or other resources abe permitted.

d) The classification of any water area as Class AA shall not preclude other uses of such waters compatible with these objectives and in conformance with the standards applicable to them.

e) Class AA waters are both nearshore and offshore waters.

8. Class A Waters

a) The uses to be protected in this class of waters are recreational, including fishing, swimming, bathing, and other water-contact sports, aesthetic enjoyment, and the support and propagation of aquatic life.

b) The use of this class of waters for recreational purposes and aesthetic enjoyment shall not be limited in any way. Such waters shall be kept clean of any trash, solid materials or oil, and shall not act as receiving waters for any effluent which has not received the best degree of treatment or control practicable under existing technological and economic conditions and compatible with the standards established for this class.

c) Class A waters are nearshore waters.

9. Class B Waters

a) The uses to be protected in this class of waters are small boat harbors, commercial and industrial shipping, bait fishing, compatible recreation, the support and propagation of aquatic life, and aesthetic enjoyment.

b) The discharge of any pollutant shall be controlled to the maximum degree possible. Sewage and industrial effluent shall receive the best degree of treatment practicable under existing technological and economic conditions. Treatment shall be compatible with the standards established for this class.

c) This designation shall apply only to a limited area next to sewage outfalls and boat docking facilities. The rest of the water area surrounding outfalls and docks shall be Class A unless given some other specific designation.

d) Class B waters are nearshore waters.

10. Classification not zoning

Nothing in the marine water use classification set forth in this Part shall be construed to establish specific zoning requirements for marine and coastal activities or to permit new commercial or industrial shipping areas in Class B waters.

PART III - ESTABLISHMENT OF MARINE WATER USE AREAS

11. General

a) Marine waters shall be classified in accordance with the uses to be protected in each class described in Part II of these regulations.

b) Figures 1 - 4 are incorporated as part of the text of these regulations and shall be read in conjunction with this Part.

c) Those marine waters of the Republic not having a specific water use classification are considered Class AA waters. Such Class AA waters include all lagoon and ocean waters of all atolls and islands not set forth by name in this Part, with the exception of those waters closely surrounding a dock of sewage outfall.

d) Those waters of the Republic closely surrounding a dock or sewage outfall are considered Class B waters.

12. Majuro Atoll

a) Class AA:

(i) all ocean side waters, except for the waters closely surrounding the Majuro sewage outfall and the tip of Laura;

(ii) on lagoon side, area between the causeway bride to the tip of Laura;

b) Class A:

(i) on lagoon side, from the tip of Rita to the causeway bridge, with the exception of the waters closely surrounding the new old dock (Uliga) and the old new dock (Delap).

(ii) tip to Laura.

c) Class B:

(i) on ocean side, the waters closely surrounding the Majuro sewage outfall;

(ii) on lagoon side, the waters closely surrounding the new old dock (Uliga) and the old new dock (Delap).

13. Ebeye Island, Kwajalein Atoll

a) Class AA: ocean side of the island.

b) Class A: southern end of the island.

c) Class B: western and northern end of the island.

14. Gugeegue Island, Kwajalein Atoll

a) Class AA: ocean side of the island.

b) Class A: all lagoon waters not in the immediate vicinity of the dock.

c) Class B: immediate vicinity of the dock.

PART IV - WATER QUALITY STANDARDS

15. Basic Criteria Applicable to All Marine Waters

a) All waters shall be capable of supporting desirable aquatic life and be suitable for recreation in and on the water.

b) All waters shall be free of visible floating materials, oils, grease, scum and other floating matter attributable to the activities of man.

c) All waters shall be free from materials attributable to sewage, industrial waste or other human activities that produce visible turbidity or settle out to form biota.

d) All waters shall be free from materials attributable to sewage, industrial waste or other human activities that produce objectionable color, odor or taste directly or by chemical or biological action in the water or biota.

e) All waters shall be free from substances attributable to human activities that induce undesirable aquatic life or degrade the indigenous biota. The survival of aquatic life and indigenous biota in waters subjected to waste discharge or other controllable water quality factors shall not be less than that for the same water body in areas unaffected by the waste discharge.

f) All waters shall be free from substances and conditions attributable to human activities that may be toxic or cause irritation to humans, animals or plants.

g) Pollutant discharges to marine waters shall be controlled so as to protect not only the receiving waters but also those waters into which the initial receiving waters may flow.

h) Whenever natural marine water conditions are of a better quality than an assigned water quality criteria under these regulations, the natural marine water conditions shall constitute the water quality criteria.

16. Specific Water Quality Criteria for Marine Waters

a) Microbiological Requirements	Apply to:
(i) The median total coliform bacteria count shall not exceed 70/100 m. for any 10 consecutive sample exceed 230/100 ml.	Class AA
(ii) Fecal coliform content shall not	Class A,

exceed an arithmetic average of 200/100 ml for any consecutive samples nor shall any single sample exceed 400/100 ml. NOTE: As an alternative to total and fecal coliform criteria, enterococci criteria may be applied.	Class B
(iii) Enterococci count shall not exceed an arithmetic average of 7/100 ml in not less than 5 samples equally spaced over a 30 day period.	Class AA
(iv) Enterococci count shall not an arithmetic average of 35/100 ml in not less than 5 samples equally spaced over a 30 day period.	Class A, Class B
(v) In areas where shellfish are harvested for human consumption, the microbiological standards for Class AA waters shall apply.	

b) Ph Units

Ph values shall be within 6.5 - 8.0 units	Class AA, Class A, Class B

c) Nutrient Material

(i) The ratio or total nitrogen to total phosphorus concentration shall be within 9 - 27.	Class AA, Class A
(ii) The ratio of total nitrogen to total phosphorus concentration shall be within 6 - 18.	Class B
(iii) The concentrations of total nitrogen and total phosphorus shall not vary by more than 10% from the natural conditions.	All Waters
(iv) Except for concentrations attributable to natural causes, nutrient concentration shall not exceed:	

Total Phosphorus (as P)

0.025 mg/l	Class AA, Class A
0.05 mg/l	Class B

Total Nitrogen (as N)

0.40 mg/l	Class AA, Class A
0.80 mg/l	Class B

d) Dissolved Oxygen

(i)	Dissolved oxygen concentration shall not vary by more than 25% from natural conditions.	All Waters
(ii)	Except for concentrations attributable to natural causes, dissolved oxygen concentration shall not be less than 6.0 mg/l or 75% of saturation, whichever is greater.	Class AA
(iii)	Except for concentrations attributable to natural causes, dissolved oxygen concentration shall not be less than 4.5 mg/l.	Class A

e) Total Dissolved Solids, Salinity, Currents

No change in channels, basin geometry or fresh water influx shall be made which would cause permanent changes in isohaline patterns of more than 10$ from the natural conditions or change in salinity outside the range of 29 - 30 o/oo, or which would otherwise adversely affect the indigenous biota and natural sedimentary patterns.	All Waters

f) Temperature

Temperature shall not vary by more than 0.9 degrees Celsius (1.5 degrees Fahrenheit from the natural conditions in marine water.	All Waters

g) Turbidity

(i)	Turbidity, as measured by Nephelometric Turbidity Units (NTU), shall not be greater than 2 NUT.	Class AA, Class A
(ii)	Turbidity, as measured by Nephelometric Turbidity Units (NTU), shall not be greater than 2 NTU.	Class B

h) Radioactive Materials

(i)	The concentration of radioactive materials in water shall not exceed 1/30th of the maximum permissible limits established for continuous occupational exposure given in the U.S. National Bureau of Standards Handbook No. 69	All Waters
(ii)	No radionuclide or combination of radionuclides shall be present in amounts that would exceed the maximum permissible levels established under the laws and regulations of the Republic.	All Waters
(iii)	The concentration of radioactive materials in water shall not result in the accumulation of radioactivity in plants or animals that result in a hazard to humans or aquatic life.	All Waters

i) Oil and Petroleum Products

(i)	The concentration of oil or petroleum products shall not be detectable as a visible film, sheen or discoloration of the surface or cause an objectionable odor.	All Waters
(ii)	The concentration of oil or petroleum products shall not cause tainting of fish or other aquatic life, be injurious to the indigenous biota or cause objectionable taste in drinking water.	All Waters

j) Toxic Substances

(i) Criteria for toxic substances may be given as either a maximum concentration or may be determined by multiplying the stated application factor by the concentration determined to be lethal to 50% of the most sensitive indigenous organism after 96 hours of exposure (96LC). When both an application factor and a maximum concentration are given, the lesser of the two shall constitute the water quality standard.

(ii) Alternate criteria for determination of toxic substances may be used with the prior written approval of the Authority. Such criteria may be determined by use of indicator organisms, analysis of species diversity, population density, growth anomalies, bioassay of appropriate duration or other appropriate methods as specified by the Authority.

(iii) 96 LC values shall be determined by using bioassay procedures consistent with those described in the latest edition of Standard Methods for the Examination of Water and Wastewater, by the American Public Health Association. 96 LC 50 values shall be determined by using the most sensitive indigenous organism to the substance in question.

(iv) No substance or combination of substances listed in The "Toxic Substances Table" of Subregulation (vi) below shall be present in marine waters in amounts that exceed 0.01 times the 96 LC 50 concentration unless it can be demonstrated to the Authority that a higher concentration has no adverse effect, chronic or acute, on the water body in question and its indigenous biota.

(v) In the absence of a specific listed criteria or standard, the general standards and provisions of these regulations shall apply.

(vi) TOXIC SUBSTANCES TABLE

(mg/L = milligrams per liter)
(ug/L = micrograms per liter)

SUBSTANCE	LIMIT	FACTOR
Aldrin	0.002 mg/L	0.01
Unionized Ammonia NH3	0.01 mg/L	0.1
Arsenic	0.01 mg/L	0.01
Barium	0.5 mg/L	0.05
Beryllium	0.1 mg/L	0.01
Boron	5.0 mg/L	0.1
Cadmium	5. ug/L	0.01
Chlordane	0.004 ug/L	0.01
Chlorine-Produced Oxidants	7.5 ug/L	0.1
Chromium	50 ug/L	0.01
Copper	3 ug/L	0.1

Cyanide	1 ug/L		0.1
DDT	0.0001 ug/L	0.01	
Demeton	0.1 ug/L	0.01	
Dieldrin	0.002 mg/L	0.01	
Endosulfan	0.001 ug/L	0.01	
Endrin	0.004 ug/L	0.01	
Guthion	0.01 ug/L	0.01	
Heptachlor	0.001 ug/L	0.01	
Iron	0.05 mg/L		
Lead	5.6 ug/L	0.01	
Lindane	0.004 ug/L	0.01	
Malathion	0.1 ug/L	0.01	
Manganese	0.02 mg/L		0.02
Mercury	0.025 ug/L		
Methoxychlor	0.03 ug/L	0.01	
Mirex	0.001 ug/L	0.01	
Nickel	0.002 mg/L	0.01	
Parathion	0.04 ug/L	0.01	
PCB	0.001 ug/L	0.01	
Phenol	1 ug/L		0.01
Elemental Phosphorus	0.1 ug/L		0.01
Phthalate Esters	3.4 ug/L		0.01
Selenium	0.005 ug/L	0.01	
Silver	1 ug/L		0.01
Hydrogen Sulfide (undissociated)	2 ug/L		
Toxaphene	0.005 ug/L	0.01	
2,4,D			0.01
2,4,5-TP			0.01
Zinc	58 ug/L	0.01	

17. General Sampling Considerations

a) All methods of sample collection, preservation, and analysis used to determine compliance with these regulations shall be in accordance with those specified in the current edition of Standard Methods for the Examination of Water and Wastewater, by the American Public Health Association.

b) Samples shall be collected at approximately equal intervals and under those conditions of tide, rainfall, and time of day when pollution is most likely to be maximum.

c) Whenever water quality standards are violated, the Authority may, by written instrument, require further samples to be taken at specified, frequent intervals, according to the severity of the violation.

d) Whenever two numeric criteria are in conflict, the more stringent criteria shall constitute the

water quality criteria.

PART V - MARSHALL ISLANDS POLLUTANT DISCHARGE ELIMINATION SYSTEM (MIPDES)

18. Permit Requirements

Any point source of discharge shall be in violation of these regulations unless it has received a Marshall Islands Pollutant Discharge Elimination System (MIPDES) Permit from the Authority.

19. Application Procedure

Application for a permit shall be made to the Authority on a form provided for that purpose and shall be accompanied by a processing fee to be determined by the Authority, which is non-refundable, except that no fee is required of the national Government of the Marshall Islands.

20. MIPDES Regulations

For the purpose of establishing general and specific criteria to limit point source discharges of pollution into the marine waters of the Republic, a system for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing MIPDES Permits shall be set forth by the Authority by public regulation.

PART VI - MIXING ZONES

21. General Requirement

a) The water quality criteria in Part IV of these regulations shall apply within a mixing zones unless specific alternative criteria have been approved by the Authority. Mixing zones shall not be granted in lieu of reasonable control measures to reduce point source pollutant discharges but shall not be granted to compliment the application of reasonable controls.

22. New Discharges

a) Any person responsible for any new point source discharge or discharges beginning after the effective date of these regulations shall apply to the Authority for a zone of mixing on forms supplied by the Authority, unless it can be affirmatively demonstrated by the applicant, to the full satisfaction of the Authority, that the point of discharge will meet the applicable water quality standards at the point of discharge.

b) It shall be a violation of these regulations for any person to commence discharging from a new point source without either obtaining a valid mixing zone from the Authority or demonstration to the Authority's satisfaction that a mixing zone is not required.

23. Mixing Zone Application Requirements

Any application for a zone of mixing must contain the following information, which information shall be provided by the applicant:

(i) evidence that an MIPDES permit has been applied for and will be obtained;

(ii) a description of the waste to be discharged including flow rate and pollutant types and quantities;

(iii) the location of the discharge and a description of the disposal methods including but not limited to outfall size and number and type of diffusers;

(iv) evidence that the concentration of toxic substances present in the discharge will not violate water quality standard for toxic substances;

(v) identification of those substances for which the mixing zone is required;

(vi) Either:

A. a certification for each substance identified in (v) above, that after initial mixing, the concentration of the substance will not exceed the applicable water quality standard;

NOTE: The following equation shall be used to calculate concentration after initial dilution:

$$C_f = C_e + \frac{C_b (D_I)}{D_I + 1}$$

C_f = Concentration after mixing

C_e = Effluent concentration (instantaneous maximum)

C_b = Background concentration

D_l = Dilution ratio

or,

B. a description of the shape, size, volume and other physical characteristics of the mixing zone required for each pollutant in the discharge so that the applicable water quality standards will be achieved at the boundary of the zone;

NOTE: The mixing zone shall be defined under those conditions of tide wind, runoff, density stratification and discharge that wold require the largest zone of mixing.

C. Method A above shall be used over Method B unless specific written permission is issued by the Authority to the contrary.

(vii) evidence that the basic water quality standards set forth in Part IV of these regulations will not be violated within the mixing zone;

(viii) a proposed schedule of effluent and receiving water monitoring to determine compliance with the proposed mixing zone.

(ix) a technical justification explaining why a mixing zone should be permitted.

24. Existing Discharges

All existing point source discharges shall apply to the Authority for a mixing zone or demonstrate that one is not required within one year of the effective date of these regulations. The application procedure is identical to the one for new sources.

25. Determination by the Authority

a) Review of Application

In reviewing a mixing zone application, the Authority shall consider:

(i) present and anticipated uses of the water body;

(ii) whether an adequate zone of passage will exist for the movement of aquatic life;

(iii) the proximity of other mixing zones;

(iv) whether the granting of a mixing zone is in the public interest.

The Authority may request additional information from the applicant that is deemed relevant to the Authority's determination.

b) Issuance of Mixing Zone

The Authority may either approve, conditionally approve or disapprove an mixing zone application. The Authority may, before taking action of the application, conduct a public hearing on the application. The Authority shall notify the applicant in writing of its determination. The notification shall include, is not limited to:

(i) the duration of the mixing zone;

(ii) any conditions placed upon the Authority's approval of the application, which conditions may include:

A. Effluent and receiving water monitoring and reporting requirements; and

B. A timetable for the reduction or elimination of the discharge;

(iii) The parameters for which the mixing zone is being granted and the alternative criteria that will apply within the mixing zone.

If the Authority disapproves a mixing zone application, it shall notify the applicant, in writing, of the reasons for the disapproval.

26. False Information

It shall be in violation of these regulations for any person knowingly present false or misleading information to the Authority in an application for a mixing zone.

PART VII - POLLUTION CONTROL REQUIREMENTS

27. General Requirement

a) Any person who initiates any project with may represent a new or increased source of pollution, either point source or non-point source, shall first obtain written approval of the Authority that the project will not directly or indirectly impair any beneficial uses of the affected marine waters.

b) The Authority may place conditions on the construction or operation of the project, or both, as necessary to mitigate or eliminate any adverse water quality impacts associated with the project.

c) The Authority may withhold approval for any project until the project has received all necessary permits and clearances or has demonstrated that such clearances will be obtained at the appropriate time.

d) It shall be a violation of these regulation for any person to initiate a project without the approval required in this Regulation.

28. Marine Sanitation Device

a) Marine sanitation devices shall be installed on all vessels with toilet facilities and shall be designed and operated to either retain, dispose of, or discharge sewage.

b) If the device has a discharge, the effluent shall not have fecal coliform bacterial count greater than 200 per 100 milliliters nor suspended solids greater than 150/mg/L.

c) In determining the composition and quality of effluent discharge from marine sanitation devices, the procedures required by Part IV of these regulations shall apply.

29. Sewage Discharge from Vessels

a) The discharge of sewage, whether treated or not, from any and all vessels into marine waters is completely prohibited.

b) An exemption from the above prohibition may be granted in writing by the Authority upon receipt of a written requested by the discharger prior to the proposed activity. Such an exemption shall be called a "Permit to Discharge." A request for a Permit to Discharge shall state the reasons for the request and show to the satisfaction of the Authority that the proposed activity poses no public health or environmental hazard.

c) A Permit to discharge under Subregulation (B) above may be issued solely for non-commercial vessels discharging treated sewage.

d) Any person requesting a permit to Discharge under Subregulation (b) above shall pay a processing fee of $50.00 to the Authority.

30. Hazardous Substances

a) It shall be in violation of these regulations for any person to store, dispose of or allow to accumulate any hazardous substances in such a manner that the substances may enter the marine waters of the Republic without first obtaining written approval of the Authority.

b) Such substances include, but are not limited to petroleum products, pesticides, radioactive substances, biological substances and toxic chemicals.

c) The Authority may require persons handling hazardous materials to implement measures to reduce the possibility of contaminating the marine waters of the Republic.

d) In the event of an accidental spill or discharge of hazardous materials, the responsible person shall immediately notify the Authority and take all reasonable measures to contain the material so that it will not contaminate the marine waters of the Republic.

e) Failure to notify the Authority within 24 hours and failure to take reasonable mitigation measures shall each constitute a separate violation of these regulations.

f) Nothing in this Regulation with respect to petroleum products shall be construed to limit or supercede the oil pollution control requirements in Part VIII of these regulations.

PART VIII - OIL POLLUTION PREVENTION MEASURES

31. Spill Prevention Control and Countermeasure Plan

a) Owners and operators of onshore and offshore facilities which could reasonably be expected to discharge oil into or upon the marine waters of the Republic or adjoining shorelines and coastal areas shall prepare a Spill Prevention Control and Countermeasure Plan (SPCC Plan) in writing in accordance with the requirements of this Part.

b) When a facility is owned by one person and operated by another person, it is the operator's duty to prepare the SPCC Plan.

32. SPCC Plan Preparation Requirements

a) The SPCC Plan shall be prepared in accordance with good engineering practices, and shall be submitted to the Authority for approval within three months of the effective date of these regulations.

b) The SPCC Plan shall include complete information and discussion regarding the facility's conformance or nonconformance with all requirements of this Part. Required additional facilities, procedures, methods, or planned use of equipment not yet fully operational shall be discussed in separate sections, and a time-line for implementation shall be provided. Details of installation and operational start-up shallbe explained separately.

c) A facility which has experienced one or more spill events within twelve months before submission of the SPCC Plan to the Authority shall include a written description of each such spill, corrective action taken plans for preventing recurrence.

d) The SPCC Plan shall include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of equipment failure. Equipment failure may include but is not limited to tank overflow, rupture, or leakage. A separate prediction shall be made for each separate type of failure.

33. Containment Structures

A facility shall use appropriate containment and diversionary structures or equipment to prevent

discharges oil from reaching and marine waters. As a minimum, at least one of the following preventive systems shall be used:

(i) Onshore Facilities

A. dikes, berms or retaining walls sufficiently impervious to contain spilled oil;

B. curbing;

C. culverting, gutters, or other drainage systems;

D. weirs, booms, other barriers;

E. spill diversion ponds;

F. retention ponds; or

G. absorbent materials.

(ii) Offshore Facilities

A. curbing, drip pans; or

B. sumps and collection systems.

34. Onshore Facility Drainage

a) Drainage from diked storage areas shall be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system. Diked areas may be emptied by pumps or ejectors. Pumps or ejectors shall be manually activated and the condition of the accumulation shall be examined before activation to ensure that no oil is discharged into marine waters. Manual, open-and-closed design valves shall be used for the drainage of diked areas. Flapper-type drain valves shall not be used to drain diked areas.

b) Inspections of the run-off rain water shall be conducted by the owner or operator of the facility at appropriate intervals, set by the Authority, to ensure compliance with applicable water quality standards and to ensure no harmful discharge occurs.

c) Drainage systems from undiked areas shall:

(i) flow into lined ponds, lined lagoons, or lined catchment basins designed to retain oil; or

(ii) return to the facility; or

(iii) the flow shall pass through an oil water separator only during a manual controlled release.

d) If an oil water separator is used, inspections shall be performed by the owner or operator of the facility during each period of flow and oil shall promptly be removed after each flow has ceased. Records of oil water separator operation and performance shall be maintained by the owner or operator of the facility and corrective actions or malfunctions, or both, shall be noted.

35. Bulk Storage Tanks

a) No tank shall be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage.

b) All bulk storage tank installations shall be constructed so that a secondary means of impervious containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. diked areas shall be sufficiently impervious to contain spilled oil.

c) Drainage of rainwater from the secondary containment area into a storm drain or an effluent discharge that empties into marine waters is acceptable if:

(i) the bypass valve is normally sealed closed;

(ii) inspection of the run-off rain water ensures compliance with the applicable water quality standards and will not cause a harmful discharge as defined in these regulations;

(iii) the bypass valve is opened, and resealed following drainage under responsible supervision.

(iv) adequate records are kept of such events.

d) The installation of new buried metallic storage tanks is prohibited. All existing buried tanks shall be subjected to regular pressure testing by the owner or operator of the facility, which results shall be transmitted to the Authority.

e) Aboveground tanks shall be subject to periodic integrity testing by the owner or operator of the facility. Integrity testing shall take into account tank design and use such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Tank supports and foundations shall be included in these inspections. Comparison records shall be kept where appropriate. In addition, the outside of the tank shall be observed frequently by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

f) New and old tank installations shall, as far as practicable, be fail-safe engineered. The Authority may require installation of one or more of the following devices:

(i) high liquid level alarms;

(ii) high liquid level pump cutoffs;

(iii) communication between the tank gauger and the pumping source;

(iv) a fast response system for determining the liquid level of reach bulk storage tank, such as digital computers, telepulse, or direct vision gauges or their equivalent.

Liquid level sensing devices shall be regularly tested to ensure proper operation.

g) Disposal facilities which discharge effluent into marine waters shall be inspected by the owner or operator in accordance with the SPCC Plan or, in any event, with sufficient frequency to detect possible system upsets that may cause an oil spill event.

h) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets, and bolts that are sufficiently large enough to cause the accumulation of oil in diked areas shall be promptly corrected.

i) Mobil or portable oil storage tanks and drums shall be positioned or located so as to prevent spilled oil and protect the tank or drum from flooding or washout. A secondary means of containment, such as dikes, catchment basins, or drip pans, shall be provided sufficient to contain the largest single compartment of the tank or drum.

36. Facility Transfer Operations

a) New buried piping installations shall have protective wrapping and coating and shall be cathodically protected. If a section of buried line is exposed for any reason, it shall be carefully examined for deterioration and stabilized, drained or removed. If corrosion damage is found, additional examination and corrective action shall be taken as indicted by the magnitude of the damage. More frequent use of exposed pipe corridors or galleries are preferred.

b) When a pipeline is not in service, the terminal connection at the transfer point shall be drained, capped and blankflanged, and marked as to origin.

c) Pipe supports shall be properly designed so as to minimize abrasion and corrosion and allow for expansion and contraction.

d) All aboveground valves and pipelines shall be subjected to regular examinations by operating personnel. Operating personnel shall assess the general condition of the following items: flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. In addition, periodic pressure testing shall be conducted for area where facility drainage is such that a failure might lead to a spill event.

37. Facility Fuel Barge Loading and Unloading

a) At least one week before the commencement of any fuel transfer operations to or from water craft, the Authority and such spill response teams as appropriate shall be notified of the date, time and location of the proposed transfer.

b) Adequate response personnel and equipment shall be available at the site of the fuel transfer operation.

c) The Authority may require the use of the following equipment and containment measures during fuel transfer operations:

(i) containment devices, such as containment booms, to be put in place around the fuel barge and other off-loading apparatus;

(ii) onboard preventive measures to be put in place to prevent any onboard leaks and spills;

(iii) catchment basins or diversion structures to be put in place to intercept and contain oil spills;

(iv) such other equipment and measures as the Authority deems appropriate.

d) Fuel transfer operations shall not take place during hours of darkness without the express prior written approval of the Authority.

38. Security

a) Facility lighting shall be designed to facilitate discovery of spills occurring during hours of darkness and prevent spills occurring through vandalism. Lighting shall be commensurate with the type and location of the facility.

b) The loading/unloading connections of oil pipelines shall be securely capped or blank-flanged when not in service or in standby service for an extended period of time.

c) The starter control on all oil pumps shall be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

39. Spill Prevention

a) The operator of the facility shall ensure proper instruction of personnel in the operation and maintenance of equipment to prevent discharges of oil.

b) The operator of the facility shall designate a person or persons who shall be accountable for oil spill prevention and who shall report at frequent intervals to the operator.

c) The operator of the facility shall schedule and conduct spill prevention briefings for operating personnel at intervals frequent enough to assure adequate understanding of the SPCC Plan for the installation.

40. Prohibition on Discharge of Oil

a) No person shall discharge on cause or permit to be discharged into the environment any oil in such quantities as may be harmful to the public health or welfare, including any discharges of oil that:

(i) violate applicable water quality standards; or

(ii) cause a film or sheen upon or discoloration of the surface of any marine waters; or

(iii) cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

b) Discharges or oil from a properly functioning vessel engine are not deemed to be harmful, but discharges of such oil accumulated in a vessel's bilges shall not be so exempt.

c) Addition of dispersants or emulsifiers to oil to be discharged that would circumvent the provisions of this Regulation are prohibited.

d) Notwithstanding any other provisions of this Regulation, the Authority may permit the discharge of oil in connection with research, demonstration projects, or studies relating to the prevention, control, or abatement of oil pollution.

e) Any person in charge of a vessel or of an onshore or offshore facility that notify the Authority as soon as he or she has knowledge of any discharge of oil from such vessel of facility in violation of these regulations.

PART IX - ENFORCEMENT

41. Violations

a) A person who violates any criteria, standard, requirement, or provision of these regulations or any permit, requirement or order issued thereunder, shall be subject to enforcement action by the Authority.

b) The enforcement action may be any or all of the following:

(i) revocation of a permit issued under these regulations;

(ii) the making of a cease and desist order in relation to the subject matter of the violation;

(iii) the imposition of a civil penalty, fixed by the Authority, not exceeding $10,000.00 for each day on which the violation continues; and

(iv) any other action authorized by the National Environmental Protection Act 1984 or any other law.

42. Public Hearing

a) When the Authority revokes a permit under Regulation 40 (b) (i) or makes a cease and desist order under Regulation 40 (b) (ii), a public hearing shall be conducted by the Authority to determine the authenticity of the facts upon which the order was made.

b) Adequate notice of the hearing, and an adequate opportunity to appear and be heard at the hearing, shall be given to all interested persons.

43. Right to enter

For the purposes of enforcing the provisions of these regulations, the Authority may, at reasonable times, enter any establishment, building, vessel or other premises or upon or into any land or water, public or private, for the purpose of obtaining information, making inspections, obtaining samples, inspecting or copying records or plans required to be made and maintained, or conducting surveys or investigation or detecting any offenses committed in contravention of these regulations.

44. Penalty for lack of permit

Any person required to have a permit under these regulations and engaged in an activity without such a permit shall be subject to a civil penalty of up to $500.00 per day for each day the activity is conducted without a permit.

Adopted by the Authority August 6, 1991.

_____

Jiba B. Kabua
Environmental Protection Authority
Republic of the Marshall Islands

Approved by the Minister of Health Services on April 1, 1992.

_____

Honorable Henchi Balos
Minister of Health & Environment
Republic of the Marshall Islands

EFFECTIVE DATE: April 10, 1992