

REVISIONS IN BOLD PRINT

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS  
WATER QUALITY STANDARDS

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COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS  
WATER QUALITY STANDARDS

PART 1 AUTHORITY

These regulations have been promulgated by the Division of Environmental Quality in accordance with 1 CMC Sections 9101-9115, and under the provisions of the Clean Water Act, P.L. 92-500 and CMC Section 248 as force and effect of law and shall be binding on all persons and other legal entities subject to the jurisdiction of the Commonwealth of the Northern Mariana Islands. The Department shall apply these regulations and standards to all marine, fresh water bodies, and ground water in the Commonwealth.

PART 2 PURPOSE

The purpose of these regulations is to establish standards for water quality for all State waters and ground water in order to protect their use and value for propagation of fish and wildlife, recreational purpose, public water supply use, and taking into consideration their use and value for commerce.

PART 3 ANTI-DEGRADATION POLICY

It shall be the public policy of the Commonwealth of the Northern Mariana Islands that:

(a) The protection, maintenance, conservation, and improvement of the quality of the waters for the growth and propagation of aquatic life, for marine research and for the conservation of coral reefs and wilderness areas, and for domestic (including drinking water), agricultural, commercial, industrial, recreational and other uses are an historic and legal right of the people of the Northern Mariana Islands.

(b) The achievement of the water quality standards of the Commonwealth of the Northern Mariana Islands is in the best interest of the protection of public health and the environment.

(c) The existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

(d) Waters where the quality exceeds the levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water shall be maintained and protected, unless the Commonwealth determines that the lower water quality is necessary to accommodate important economic or social

development in the area in which the waters are located. In allowing such degradation to occur the Commonwealth shall assure the following: 1) the lower water quality be fully protective of designated uses, (2) the impacts on water quality and economic and social development be subject to detailed water quality and economic analyses, (3) that inter governmental coordination and public participation be included in any determination, (4) the highest statutory and regulatory requirements be achieved for all new and existing point sources, and (5) that all cost effective and reasonable best management practices for nonpoint source control be employed.

(e) High quality surface waters which constitute an outstanding Commonwealth resource, such as waters of wildlife refuges and waters of exceptional recreational or ecological significance shall be maintained and protected.

(f) There shall be no point or nonpoint discharge of untreated sewage or other wastewater into any planned or existing ground or surface source of drinking water.

(g) All sewage, wastewater, and any other matter shall receive a degree of treatment necessary to protect the beneficial uses of the state waters before discharging.

(h) The existing uses in wetlands and the level of water quality necessary to protect those uses shall be protected.

#### PART 4 DEFINITIONS

"Acute exposure value" - The threshold value at or below which there should be no unacceptable effects to aquatic organisms and their uses if the one-hour concentration does not exceed that value more than once every three years on the average.

"Ambient Conditions" means the existing water quality conditions at a specific location not influenced by anthropogenic sources.

"Aquifer" means a geologic formation or group of geological formations that is water bearing and which transmits water in sufficient quantity to supply springs or pumping wells.

"Brackish Waters" means waters with dissolved inorganic ions (salinity) greater than 500 ppm (parts per million), but less than 30,000 ppm.

"Chronic exposure value" - The threshold value at or below which there should be no unacceptable effects to aquatic organisms and their uses if the four-day concentration does not

exceed that value more than once every three years on the average.

"Coastal Waters" means all waters of a depth less than twenty (20) fathoms, or waters up to distance of 1,000 feet off-shore from the mean high water mark, whichever is the greater distance from the shoreline.

"Commonwealth" means Commonwealth of the Northern Mariana Islands.

"CWA" means the Clean Water Act, P.L. 92-500 as amended: 33 U.S.C. 1251 et seq.

"Department" means the Commonwealth Department of Public Works.

"DEQ" means the Commonwealth Division of Environmental Quality within the Department of Public Works.

"Director" means the Director of the Commonwealth Division of Environmental Quality.

"Discharger" means any person who emits any wastewater, substance, or material into the waters of the Commonwealth whether or not such substance causes pollution.

"Fresh Waters" means all waters with dissolved inorganic ions of less than 500 ppm.

"Ground Water" means water derived from the subsurface which is in the zone of saturation.

"Mixing Zone" means the area or volume of a water body within which effluent(s) shall become physically mixed with the receiving waters through initial dilution. Initial dilution is the process through which the wastewater immediately mixes with the receiving water due to the momentum of the waste discharge and the difference in density between the discharge and the receiving water.

"Oceanic Waters" means all other marine waters outside of the twenty (20) fathom depth contour or greater than 1,000 feet off-shore from the mean high water mark whichever is the greater distance from the shoreline.

"Pollutant" means any substance that causes pollution.

"Pollution" means the man-made or man-induced degradation of the chemical, physical, biological, and radiological integrity of water.

"Receiving Water(s)" means State water(s) of the Commonwealth into which wastes or wastewaters are, or may be, discharged.

"Secretary" means the Secretary of the Commonwealth Department of Public Works.

"State Waters" means all natural waters, fresh, brackish, or marine including wetlands, around and within the Commonwealth and as further delineated and defined under the Marine Sovereignty Act of 1980 (P.L. 2-7).

"Toxic" means lethal, oncogenic, teratogenic or mutagenic, or otherwise damaging to man or other living organisms.

"Wastewater" means sewage, industrial waste, or other waste, or any combination of these, whether treated or untreated, plus any admixed land runoff.

"Wetlands" means an area which is inundated or saturated by surface or groundwater at a frequency and duration that is sufficient to support, and under normal circumstances does support, vegetation typically adapted for life in saturated soil conditions.

"Zone of Passage" means a continuous water route of the volume, area, and quality necessary to allow passage of free-swimming and drifting organisms with no significant effects produced on their populations.

## PART 5 CLASSIFICATION OF WATER USES

### 5.1 Marine Waters

(a) CLASS AA - It is the objective of this class that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-related source or actions. - To the extent practicable, the wilderness character of such areas shall be protected. No zones of mixing shall be permitted.

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

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 criteria applicable to them.

(b) CLASS A - It is the objective of this class of waters that their use for recreational purposes and aesthetic enjoyment be protected.

Any other use shall be allowed as long as it is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters of a limited body contact nature. Such waters shall be kept clean of solid waste, oil and grease, and shall not act as receiving waters for any effluent which has not received the best degree of treatment of control practicable under existing technology and economic conditions and compatible with standards established for this class. A zone of mixing is approvable in such waters.

### 5.2 Fresh Surface Waters

(a) Class 1 - It is the objective of this class that these waters remain in their natural state as nearly as possible with an absolute minimum of pollution from any human-caused source. To the extent possible, the wilderness character of such areas shall be protected. Wastewater discharges and zone of mixing into these waters are prohibited.

The uses to be protected in this class of water are for domestic water supplies, food processing, the support and propagation of aquatic life, compatible recreation and aesthetic enjoyment including water contact recreation.

(b) Class 2 - It is the objective of this class of waters that their use for recreational purposes, propagation of fish and other aquatic life, and agricultural and industrial water supply not be limited in any way. The uses to be protected in this class of waters are all uses compatible with the protection and propagation of fish and other aquatic life, and with recreation in and on these waters. Compatible recreation may include limited body contact activities. Such waters shall not act as receiving waters for any discharge which has not received the best degree of treatment or control practical under technological and economic conditions and compatible with the standards established for this class. A zone of mixing is permissible in these waters.

### 5.3 Protection of Wetlands

Wetlands are waters of the State and are subject to the provisions of this rule. Point or nonpoint sources of pollution shall not cause destruction or impairment of wetlands. The general application of the Water Quality Standards shall apply to all wetlands unless replaced by site specific standards for wetlands based on their function are adopted by the Commonwealth and approved by EPA.

#### 5.4 Protection of Ground Water

Whereas the Commonwealth is almost entirely dependent on ground water for its drinking water supplies, these regulations set water quality standards for land disposal activities to ensure the protection of this natural resource. At this time, requirements for land disposal activities will be dependent on vertical distances to the aquifer, lateral distances to nearby water wells, and general quality of existing ground water until specific groundwater quality management zones are developed.

#### PART 6 BASIC WATER QUALITY CRITERIA APPLICABLE TO ALL SURFACE WATERS

All surface waters shall be free of substances attributable to domestic, industrial, or other controllable sources of pollutants and shall be capable of supporting desirable aquatic life and be suitable for recreation in and on the water.

This part will be subject to verification by monitoring as may be prescribed by the Secretary or Director to assure freedom from any of the following conditions:

(a) Materials that will settle to form objectionable sludge or bottom deposits.

(b) Floating debris, oil, grease, scum, or other floating materials.

(c) Substances in amounts sufficient to produce taste or odor in the water or detectable off flavor in the flesh of fish, or in amounts sufficient to produce objectionable odor, turbidity, or other conditions in the receiving waters.

(d) High temperatures; biocides; pathogenic organisms; toxic, corrosive, or other deleterious substances at levels or in combinations sufficient to be toxic or harmful to human health or aquatic life, or in amounts sufficient to interfere with any beneficial use of the water.

(e) Soil particles resulting from erosion on land involved in earth work, such as construction of public works; highways; subdivisions; recreational; commercial, or industrial development; or the cultivation and management of agricultural lands.

(f) Substances or conditions or combinations thereof in concentration which produce undesirable aquatic life.

PART 7 SPECIFIC WATER QUALITY CRITERIA FOR SURFACE WATERS

7.1 Microbiological Requirements

Applicable to:

The fecal coliform concentration shall not exceed a geometric mean of 200 per one hundred milliliter in not less than five samples equally spaced over a thirty-day period nor shall any single sample exceed 400 per one hundred milliliter at any time.

All Waters

The Enterococci concentration shall not exceed a geometric mean of 35 per one hundred milliliters.

AA

The Enterococci concentration shall not exceed a geometric mean of 33 per one hundred milliliters.

1

The E. Coli concentration shall not exceed a geometric mean of 125 per one hundred milliliters.

1

The Enterococci concentration shall not exceed a geometric mean of 125 per one hundred milliliters.

A

The Enterococci concentration shall not exceed a geometric mean of 90 per one hundred milliliters.

2

The E. Coli concentration shall not exceed a geometric mean of 300 per one hundred milliliters.

2

Fecal coliform and enterococci may originate from environmental sources as well as from human and animal fecal contamination. Where these microbiological standards are exceeded, a determination of the impact on public health and the environment may be based upon additional sampling, a sanitary survey of the drainage area contributing run-off to the contaminated water, and special studies of the environmental sources of fecal coliform and enterococci in the waters of the CNMI.

In areas which support shellfish habitat where the shellfish are harvested for human consumption the fecal coliform concentration shall not exceed a geometric mean of 14 per one hundred milliliters.

7.2 pH

To

Applicable

pH shall not deviate more than 0.5 units from a value of 8.1.

A,AA

pH shall not deviate more than 0.5 from ambient conditions and shall not be lower than 6.5 nor higher than 8.5.

1,2

7.3 Nutrients

Parameter	Concentration Shall Not Exceed (mg/l)	Applicable To
Nitrate-Nitrogen	0.20	AA
	0.50	A
Total Nitrogen	0.4	AA
	0.75	A, 1
	1.50	2
Orthophosphate	0.025	AA
	0.05	A
	0.10	1,2
Total Phosphorus	0.025	AA
	0.05	A
	0.10	1,2
Ammonia (un-ionized)	0.02	AA,A,1,2

7.4 Dissolved Oxygen

Concentration of dissolved oxygen in all waters shall not be less than 75% saturation. Where natural conditions cause lower dissolved oxygen levels, controllable water quality factors shall not cause further reductions.

7.5 Total Filterable Suspended Solids

Applicable To

Concentrations of suspended matter at any point shall not be increased from ambient conditions at any time, and should not exceed 5 mg/l except when due to natural conditions.

AA,1

Concentrations of suspended matter at any point shall not be increased from ambient conditions at any time, and should not exceed 40 mg/l except when due to natural conditions.

A,2

## 7.6 Salinity

Marine Waters: No alterations of the marine environment shall occur that would: (1) alter the salinity of marine or estuarine waters more than 10% of the ambient conditions, or (2) which would otherwise adversely affect the sedimentary patterns and indigenous biota, except when due to natural causes. A,AA

Fresh water: The maximum allowable amount of chlorides and sulfates shall be 250 mg/l, and the Total Dissolved Solids shall not exceed 500 mg/l or 133% of the ambient condition. The salinity of fresh water sources and wetlands shall not be increased more than 20% from ambient conditions. 1,2

## 7.7 Temperature

Water temperature shall not vary by more than 1.0°C from the ambient conditions. AA,A,1,2

## 7.8 Turbidity

Turbidity at any point, as measured by nephelometric turbidity units (NTU), shall not exceed 0.5 NTU over ambient conditions except when due to natural conditions. AA,1

Turbidity values (NTU) at any point shall not exceed 1.0 NTU over ambient conditions except when due to natural conditions. A,2

## 7.9 Radioactive Materials

Discharge of radioactive materials at any level into any waters of the Commonwealth is strictly prohibited. All

## 7.10 Oil and Petroleum Products

The concentration of oil or petroleum products shall not: All waters

(a) Be detectable as a visible film, sheen, or discoloration of the surface or cause an objectionable odor.

(b) Cause tainting of fish or other aquatic life, be injurious to the indigenous biota or cause objectionable taste in drinking

water.

(c) Form an oil deposit on beaches or shoreline or on the bottom of a body of water.

#### 7.11 Toxic Pollutants

In order that the designated uses of State waters be protected, all waters shall be free from toxic pollutants in concentrations that are lethal to, or that produce detrimental physiological responses in human, plant, or animal life. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species and/or significant alterations in population or community ecology or receiving water biota.

A "toxic pollutant" is as defined by the CWA, Section 502(13). Criteria for toxic pollutants are given as either a numeric criteria or are 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 (96 LC 50). The 96 LC 50 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.

In order to determine compliance with this section, the Director may require additional studies of indicator organisms which include, but are not limited to, analyses of species diversity, species abundance, reproductive success, population density, and growth anomalies. Additionally, effects on human health due to bioconcentration shall be considered.

Aquatic life and human health numeric criteria for the toxic pollutants included in the CWA, Section 307(a), list of priority pollutants, or any subsequent revision are incorporated by reference into the CNMI, Water Quality Standards. Numeric criteria are listed in Tables A and B, Water Quality Criteria.

In waters designated for use as a source of public water supply, the human health numeric criteria shall be at least as stringent as the maximum contaminant levels (MCL's) for drinking water established in the CNMI Drinking Water Regulations.

Site specific criteria shall be developed for toxic pollutants for which: numeric water quality criteria have not been established; a species inhabiting a given site may be more or less sensitive than those used in developing the established criteria; the water chemistry (e.g., pH, hardness, temperature, suspended solids, etc) appears to differ significantly from the laboratory water used in developing the criteria; or the residual

toxicity or synergistic (combined) effect of pollutants requires analyses and development of site specific criteria.

Site specific criteria for aquatic life and human health shall be derived from the CWA, Section 304(a)(1) water quality criteria or by methods published by the U.S. Environmental Protection Agency as described in (45 Federal Register 79318), November 28, 1980.

In areas where site specific criteria are developed, the Department shall regulate point source discharges by establishing effluent limits which are protective of the designated use of the waters in the area.

#### 7.12 General Considerations

(a) Effects of high temperature, biocides, pathogenic organisms or other deleterious substances at levels or combinations sufficient to interfere with aquatic life or human health, or in amounts sufficient to interfere with the beneficial use of the water shall be evaluated as a minimum by use of a 96-hour bioassay as described in the most recent editions of Standard Methods for the Examination of Water and Wastewater. Survival of test organisms shall not be less than that in controls which utilize appropriate water. Failure to determine presence of toxic substances by this method shall not preclude determinations of excessive levels of toxic substances on the basis of other criteria or methods.

(b) Pollutant discharges shall be regulated so as to protect not only the receiving waters but also the surrounding state waters and marine life which are affected indirectly through pollutant discharges.

(c) Part 6 (e) shall be met upon showing that the land on which the erosion occurred or is occurring is being managed in accordance with the CNMI Earthmoving and Erosion Control Regulations, Commonwealth Register Vol. 8 No. 6, September 15, 1986, and that a comprehensive conservation program is being actively pursued, or that the discharge has received the best degree of treatment or control, and that the severity of impact of the residual soil reaching the receiving body of water is deemed by the Director to be acceptable.

(d) The health and life history characteristics of aquatic organisms in waters affected by controllable water quality factors shall not differ substantially from those for the same waters in areas unaffected by controllable water quality factors. Also, controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life.

PART 8 CLASSIFICATION AND ESTABLISHMENT OF WATER USE AREAS

8.1 Rota

(a) CLASS AA

All coastal and oceanic waters surrounding Rota except for those waters delineated in CLASS A.

(b) CLASS A

The coastal waters known as East Harbor and West Harbor.

(c) CLASS 1

All natural (not man-made) fresh surface waters on Rota.

8.2 Tinian and Agiguan

(a) CLASS AA

All coastal and oceanic waters surrounding Tinian and Agiguan except for those waters delineated in CLASS A.

(b) CLASS A

The coastal waters known as San Jose Harbor.

(c) CLASS 1

All fresh surface waters on Tinian and Agiguan.

8.3 Saipan

(a) CLASS AA

All coastal and oceanic waters surrounding Saipan except for those waters delineated in CLASS A and all waters up to 2000 feet in all directions from the mean high water mark on the shore of Managaha Island.

(b) CLASS A

The coastal waters from Puntan Muchot to Saddok As Agatan except for waters up to 2000 feet in all directions from the mean high water mark on the shore of Managaha Island.

The coastal waters surrounding the Agingan Wastewater Treatment Plant, within a 1,000 foot radius of the outfall.

(c) CLASS 1

All fresh surface waters on Saipan.

8.4 Northern Islands (Farallon de Medinilla, Anatahan, Sariguan, Guguan, Alamagan, Pagan, Agrihan, Asuncion, Maug, Farallon de Pajaros)

(a) CLASS AA

All coastal and oceanic waters surrounding the Northern Islands except for those delineated in CLASS A.

(b) CLASS A

The coastal and oceanic waters surrounding Farallon de Medinilla.

(c) CLASS 1

All fresh surface waters in the Northern Islands.

PART 9 MIXING ZONE IN RECEIVING WATERS

The water quality criteria in these regulations shall apply within a mixing zone unless specific alternative criteria have been approved by the Division of Environmental Quality. Mixing Zones will not be granted in lieu of reasonable control measures to reduce point source pollutant discharges but will be granted to complement the applicable controls. A limited mixing zone in the immediate area of a point source of pollution may be allowed if the conditions set out in this part are met.

9.1 Establishment of Mixing Zone

No mixing zone shall be established unless the continuation of the function or operation involved in the discharge by the granting of the mixing zone is in the public interest, and the discharge occurring or proposed to occur does not substantially endanger public health and safety.

9.2 Prevention, Control, and Abatement

If the mixing zone is established on the grounds that there is no reasonable means known or available for the adequate prevention, control, or abatement of the discharge involved, it may be allowed until the necessary means for prevention, control or abatement become practicable, and subject to the taking of any substitute or alternative measures that the Director may prescribe. No renewal of a mixing zone shall be allowed without a thorough review of known and available means of preventing, controlling, or abating the discharge involved.

### 9.3 Time Limit for Mixing Zone

The Director may issue an approval for the establishment of a mixing zone for a period not to exceed five years.

### 9.4 Mixing Zone Characteristics

An allowable mixing zone shall be defined by all or some of the following characteristics: receiving water; discharge location; volume of discharge; specific linear distance; area or volume; mixing velocities and other pertinent hydrologic biological, chemical, and physical characteristics.

### 9.5 Criteria for Mixing Zone

The following criteria shall be met in determining the location, size, shape, and in-zone quality of mixing zones.

(a) Mixing zones shall not impact any area of a water body in such a manner that the maintenance of aquatic life in the body of water as a whole would be adversely affected.

(b) Mixing zones shall be as small as practicable.

(c) Where two or more mixing zones are in close proximity, they shall be so defined that a continuous zone of passage for aquatic life is available.

(d) Mixing zones shall be free from substances in concentrations or combinations that will cause acute lethality to aquatic life.

(e) The prohibition on acute lethality established in Part 9.5(g) shall be implemented by requiring that the concentrations of toxic pollutants in the pipe at the point of discharge shall not exceed the acute, aquatic life water quality criteria of Part 7.11 of these regulations.

(f) For discharges into freshwater streams and rivers the mixing zone will be limited to not more than 1/4 of the cross sectional area and/or volume of flow of the stream, leaving at least 3/4 free as a Zone of Passage. The mixing zone shall not extend more than 5 stream widths downstream from the point of discharge. Mixing zones will not be allowed in standing bodies of water with no currents available for dispersion of pollutants.

(g) All discharges to marine waters will comply with the Ocean Discharge Criteria promulgated under Section 403 (c) of the CWA.

## PART 10 WATER QUALITY CERTIFICATION

A water quality certification is required by the CWA, Section 401 of any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into waters of the United States. The Division of Environmental Quality shall issue a water quality certification for any proposed activity which: (1) complies with the applicable provisions of the CWA Sections 301, 302, 303, 306, and 307, (2) complies with applicable provisions of the CNMI Water Quality Standards, (3) will not interfere with the attainment or maintenance of the existing or designated use of the state waters, and (4) all appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on aquatic life and human health, as determined by the Director.

### 10.1 Application For Water Quality Certification

An applicant for certification shall submit a completed application for the CNMI Water Quality Certification. The application shall include a description of the discharge involved in the activity for which certification is sought, with a request for certification signed by the applicant. The application shall include the following:

- (a) The name and address of the applicants;
- (b) A description of the facility or activity, and of any discharge into state waters which may result from the conduct of any activity including, but not limited to, the construction or operation of the facility. This description shall include the characteristic of the discharge, and the location or locations at which such discharge may enter state waters;
- (c) If applicable, a description of the function and operation of equipment or facilities to control discharges, including specification of the methods of control to be used;
- (d) The estimated date or dates on which the activity will begin and end and the date or dates on which the discharge(s) will take place;
- (e) If applicable, a description of the methods and means being used or proposed to monitor the quality and characteristics of the discharge and the operation of equipment or facilities employed in the control of the proposed discharge;
- (f) The Director may require the submission of additional information after a certification application has been filed. If a certification application is incomplete or otherwise deficient, processing of the application shall not be completed until such

time as the applicant has supplied the missing information or other wise corrected the deficiency. The Director shall notify the applicant, in writing, **within fifteen days** of the submission of an application, if an application is incomplete or otherwise deficient. A description of the type of additional information necessary to complete the application or correct the deficiency will be included with such a written notice. Failure to provide additional information or to correct a deficiency shall be sufficient grounds for denial of certification;

(g) The applicant is required to notify the department, in writing, of changes which may affect the application and certification proces;

(h) The applicant will be informed, in writing, by the Director when a certification application is considered complete. The Director shall act on a request for certification within a period which shall not exceed six months; and

(i) Every applicant for water quality certification shall pay a filing fee. Filing fees for water quality certification are dependent on the type and scale of the proposed activity and its potential to affect water quality:

(1) Any commercial activity that will result in either the generation of an excess of 5000 gallons of wastewater per day, any clearing of 1000 square meters or filling exceeding 1000 cubic meters in waters of the CNMI, or any other large scale development required to obtain a 401 Water Quality Certification as determined by the Director shall pay a fee of \$5000.

(2) Any commercial activity requiring a 401 Water Quality Certification that will result in either the the generation of less than 5000 gallons of wastewater per day or any clearing less than 1000 square meters or filling in waters of the CNMI that is less than 1000 cubic meters shall pay a fee of \$1000.

(3) Any small family residential activity requiring a 401 Water Quality Certification resulting in a clearing that does not exceed 1000 square meters is required to obtain a water quality certification and shall pay a fee of \$100. Any residential activity exceeding 1000 square meters must pay an additional fee of \$5 per 100 square meters or fraction thereof.

This filing fee shall be submitted with the water quality certification application letter and shall not be refunded nor applied to any subsequent water quality certification following final action or denial of a water quality certification. Any Federal or CNMI government agency shall be exempt from paying

filing fees.

10.2 Public Notification and Public Hearing

DEQ shall issue a public notification upon receipt of an application for a water quality certification.

(a) The notice will include the name and address of the applicant, and a brief description of the activity and of the discharge involved in the activity for which certification is being sought.

(b) The notice shall be published in a minimum of two newspapers, one of which has a daily circulation.

(c) The public comment period shall be for at least 30 days from the date of the first publication of the notice. The Director may, upon request, provide the opportunity for public hearing(s) to consider issuance of a water quality certification. The Director shall inform the applicant, in writing, that such action has been taken.

(d) All publication costs related to public notification(s) and hearing(s) shall be paid by the applicant to the necessary and appropriate newspaper agency(ies) prior to publication date.

10.3 Determination of Water Quality Certification

(a) The Director shall make a determination on a Water Quality Certification based upon evaluation of:

(1) the application made by the applicant to the licensing or permitting agency and the information contained in such application which is relevant to water quality considerations,

(2) the application materials submitted pursuant to part 10.1,

(3) comments received during the public comment period,

(4) the record of a public hearing held pursuant to part 10.2, and

(5) any other information and data that the Director deems relevant.

(b) DEQ shall not grant a water quality certification for any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the waters of the United States unless the activity meets all of

the provisions of the CWA 404(b)(1) as described in 40 CFR Part 230.

(c) The contents of the Water Quality Certification issued by DEQ shall include:

- (1) the name and address of the applicant
- (2) reference to the application materials which were evaluated in making the certification, identified by date received, and federal license and permit application number or code where applicable,
- (3) a statement that there is reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards,
- (4) a statement of any conditions which the Director deems necessary or desirable with respect to the discharge or the activity, and
- (5) any such other information as the Director may determine to be appropriate.

(d) If after considering the information submitted pursuant to 10.3(a) the Director determines that there is reasonable assurance that applicable water quality standards will not be violated and the proposed methods of control will be applied to a discharge which is the result of any activity including, but not limited to, the construction and operation of facilities, then the Director shall so certify.

(e) The Director may modify the certification prior to the issuance of the federal license or permit, after consideration of information presented by the applicant licensing or permitting agency or other government agencies or interested parties.

(f) If the Director fails or refuses to act on a request for certification within a reasonable period of time (which shall not exceed six months) after receipt of a complete application, then the certification requirements of this section shall be waived with respect to federal applications.

(g) If the discharge in question is the result of one of the activities which receives a nationwide permit for the discharge of dredge and fill materials, thereby fulfilling specific conditions of that permit pursuant to 33 CFR 330.5 and 330.6, then the Director will determine, on a case-by-case basis, which projects are considered to be minor and non-controversial. Certification requirements of this section shall be waived for minor and non-controversial activities within six months of the receipt of a completed application.

(h) Water Quality Certifications for storm water discharges associated with industrial and construction site activities, as described in 40 CFR Part 122.26, shall be waived provided the following conditions are met:

(1) All conditions and requirements set forth in the United States Environmental Protection Agency, Final National Pollutant Discharge Elimination System (NPDES) General Permits for Storm Water Discharges Associated With Industrial Activity and from Construction Sites, issued September 25, 1992, are complied with;

(2) A storm water pollution prevention plan for storm water discharges associated with industrial activities or from construction sites is approved by the Director of DEQ prior to submission of the Notice of Intent (NOI) which is EPA Form 3510-6. For facilities with current storm water discharges associated with industrial activities, a storm water plan is submitted within thirty (30) calendar days of adoption of this regulation;

(3) a NOI to be covered by the general permit for discharges associated with industrial activities or for discharges from construction activities is submitted to DEQ and USEPA, Region IX, accompanied by a pollution prevention plan approval letter from DEQ;

(4) the NOI is postmarked seven (7) calendar days prior to any storm water discharges and a copy is submitted to the Director of DEQ no later than seven (7) calendar days prior to any storm water discharges; and

(5) all monitoring reports required by the respective general storm water permits are submitted to DEQ.

The Director may deny coverage under this permit and require submittal of an application for an individual NPDES permit based on a review of the NOI or other information made available to the Director.

(i) If the discharge in question is the result of a National Pollutant Discharge Elimination System Permits for Storm Water Discharges, Certification requirements of this section shall be waived for Industrial Facilities provided:

(1) All requirements of Permit of United States Environmental Protection Agency (EPA) are complied with;

(2) the storm water pollution prevention plan must be approved by the Director of DEQ as follows:

Type of Facility

Date by Storm Water Pollution

Prevention Plan Submitted to DEQ

Facility currently with storm water discharge ... associated with industrial activity . . . . . within 30 days from the adoption of this regulation.

Facility with storm water discharge associated with industrial activity commencing after the adoption of these regulations . . . . . Approval must occur prior to the submittal of the NOI to EPA.

Oil & Gas Facility that is required to apply for Registered Quantity Release . . . . . 60 calendar days after commencement of discharge.

Facilities owned or operated by municipality that is rejected or denied participation in group application . . . . . 365th day following the date of rejection or denial.

(3) a NOI to be covered by the general permit must be submitted to the United States Environmental Protection Agency (EPA) in the form proscribed by the EPA;

(4) the NOI to EPA must be postmarked seven (7) calendar days prior to any discharge; and

(5) a copy of the NOI must be submitted to the Director of DEQ no later than seven (7) calendar days prior to any discharge.

The Director may deny coverage under this permit and require submittal of an application for an individual NPDES permit based on a review of the NOI or other information.

10.5 Water Quality Certification-General Provisions

(a) Where any facility or activity has received certification pursuant to section 10.3 in connection with the issuance of a license or permit for construction, and where such facility or activity is not required to obtain an operating license or permit, the Director, prior to the operation of such facility or activity, shall be afforded the opportunity to perform an initial inspection of such facility or activity for the purpose of determining if the manner in which such facility or activity will be operated or conducted will violate applicable water quality standards.

(b) If the Director, after the initial inspection pursuant to section 10.4 (a) determines that operation of the proposed facility or activity will violate applicable water quality standards, the Director shall so notify the applicant and the licensing or permitting agency.

(c) Where a licensing or permitting agency, following a public hearing, suspends a license or permit after receiving the Director's notice and recommendation pursuant to section 10.3, the applicant may submit evidence to the Director, that the facility or activity has been modified so as not to violate applicable water quality standards. If the Director determines that the applicable water quality standards have not been violated, the Director shall so notify the licensing or permitting agency.

(d) The Director may, and upon request shall, provide licensing and permitting agencies with determinations, definitions, and interpretations to the meaning and content of the CNMI water quality standards. The Director may, and upon request shall, also advise licensing and permitting agencies as to the status of compliance by dischargers with the conditions and requirements of applicable water quality standards.

#### 10.6 Water Quality Certification-Adoption of New or Revised Water Quality Standards

To the extent permitted by applicable law, all water quality certifications to be issued by DEQ shall require the licensing or permitting authority to include a clause in the license or permit advising the licensee or permittee that the license or permit shall be subject to amendment or modification if and to the extent that existing water quality standards are made more stringent, or new water quality standards are adopted, by DEQ.

Upon adoption or revision of water quality standards, DEQ shall notify the licensing or permitting authority and the licensee or permittee of the revised or newly-enacted water quality standards and shall request the licensing or permitting authority to amend or modify the license or permit, if and to the extent permitted by applicable law, to reflect the applicable water quality standards.

### **PART 11 LAND DISPOSAL OF WASTEWATER**

#### **11.1 General Applicability**

Any action or activity that results in the disposal of wastewater on land in excess of fifty-five (55) gallons per day

requires the Director of DEQ approval. Types of wastewater and pollutants discharges that need approval prior to land disposal include but are not limited to reverse osmosis brine and oil/water separator discharges.

(a) The disposal of human or animal wastewater is excluded under these requirements as this activity is regulated under the CNMI Individual Wastewater Disposal System regulations.

(b) The disposal of wastewater through an injection well is excluded as this activity is regulated under the CNMI Underground Injection Control (UIC) regulations.

#### 11.2 Submission of Land Disposal Plans

Prior to the land disposal of any wastewater or other pollutants in excess of fifty-five (55) gallons per day, the Director of DEQ will review the plan for disposal and make a determination that the marine water or ground water will not be adversely affected by such disposal.

(a) The plan for the land disposal shall include the following items:

(1) Name, address, and phone number of applicant;

(2) Description of the physical process that produces the wastewater, chemical make-up of wastewater, and average volume produced on a daily and annual basis;

(3) Map of disposal site which identifies elevation, nearby landmarks, and proposed point of discharge;

(4) Schematic of proposed land disposal method (e.g. precolation trench, ponding basin, leachfield, infiltrator) to be used;

(5) In the event that the land disposal plans requires seepage as a mechanism for the removal of fluids, the applicant must perform a percolation test on the proposed site and submit the results to the Director of the Division of Environmental Quality.

(b) The applicant must pay a \$500 filing fee for all land disposal plans that are submitted to the Director of the Division of Environmental Quality for review.

(1) This fee will be waived for projects that have applied for a Clean Water Act 401 Water Quality Certification.

- (2) All government agencies shall be exempt from paying a fee.

### 11.3 Land Disposal in Coastal Lands

Land disposal in coastal lands is defined as disposal of wastewater within one hundred and fifty (150) feet of the mean high water mark of the shoreline. Any wastewater to be land disposed on coastal lands must meet CNMI Water Quality Standards.

### 11.4 Land Disposal in Groundwater Recharge Areas

Land areas other than coastal lands are defined as groundwater recharge areas. The applicant must make a determination of the depth to ground water on documented evidence including the elevation above sea level and a review of the nearby well drilling records. The applicant may provide an estimate of the depth to ground water on the basis of a report from a professional hydrogeologist. Groundwater recharge areas are further divided into three subcategories:

- (a) Primary groundwater recharge zones are defined as

(1) areas contributing surface infiltration within one hundred (100) feet vertically above a geologic formation that is saturated with ground water that is capable of transmitting water in sufficient quantity to sustain a public water supply well; or

(2) within three hundred (300) feet laterally upgradient from a public water water well; or

(3) one hundred and fifty (150) feet laterally downgradient from a public water supply well.

(b) Secondary groundwater recharge zones are defined as areas contributing surface infiltration but exceed 100 feet to a geologic formation that is saturated with ground water and currently or is capable of transmitting water in sufficient quantity to sustain a public water supply well.

(c) Brackish groundwater recharge zones are defined as areas contributing surface infiltration to a geologic formation that is saturated with brackish ground water with greater than 500 part per million total dissolved solids.

### 11.5 Discharge Limitations for Land Disposal of Wastewater

Discharge limitations for wastewater that is to be land disposed in groundwater recharge areas is dependent on subcategory of groundwater recharge area and volume of wastewater to be

disposed.

(a) Wastewater that is to be land disposed in primary groundwater recharge zones must meet drinking water standards as set in CNMI Drinking Water Regulations.

(b) Discharge limitations for water quality to be land disposed in secondary groundwater recharge zones and brackish groundwater recharge zones are dependent on volume of wastewater. Specific criteria for discharge limitations will be determined on a case-by-case basis and authorized in the permit.

## PART 12 INSPECTIONS AND RIGHT OF ENTRY

### 12.1 General Inspections

DEQ may make any inspections of any construction work or industrial facility deemed necessary to ascertain compliance with the provision of these regulations. As a condition for the issuance and continuation of any certification granted under these regulations, the holder of a certification shall allow prompt access to the premises covered by the permit or plan to the Director or his authorized representative for the purpose of inspecting the premises for compliance with the terms of the certification. The inspection may be made with or without advance notice to the certification holder, with good purpose, at the discretion of the Director, but shall be made at reasonable times unless an emergency dictates otherwise.

### 12.2 Inspections at Reasonable Times

All facilities that have applied for or are required to obtain a water quality certification or NOI shall be subject to DEQ inspections at reasonable times by authorized employees of the DEQ.

### 12.3 Right to Enter When the Director Has Probable Cause-

(a) If the Director has probable cause to believe a violation of these regulations or any order issued under these regulations, or any term of a certification granted pursuant to these regulations, has occurred or is imminent, or if it is necessary to permit the Director to perform his duties under this Act, the Director shall apply to the Commonwealth Trial Court or the District Court for the Northern Mariana Islands for an order or warrant to enter upon and search any property, take necessary samples or readings therefrom, seize evidence found therein and examine or impound any book or record found therein or specified in such order or warrant.

(b) The Director or his authorized representative may enter

upon any property for the purpose set forth in subsection (a) of this section without an order or warrant if he/she has probable cause to believe all of the following:

- (1) That a violation described in these regulations has occurred or is imminent.
- (2) That the violation poses a serious, substantial, and immediate threat to the public health or welfare.
- (3) That the delay in obtaining a court order or warrant would prolong or increase the threat, or would prevent, hinder, or delay the discovery of evidence of the violation or the taking of any necessary mitigating or remedial measures.

#### 12.4 Inconsistent Conditions

If the inspector finds the conditions are other than as stated in the certification approved by DEQ, the Director may revoke the approval after issuance of a Notice of Violation and opportunity for a hearing.

### PART 13 NOTICES OF VIOLATIONS, ADMINISTRATIVE ORDERS, AND PENALTIES

#### 13.1 Power to Uphold Water Quality Standards

The Division is responsible for enforcement of these regulations in accordance with the applicable laws of the CNMI and the Clean Water Act and its amendments. Where State waters designated for recreational use fall below the CNMI water quality standards set forth in these regulations, the Director in consultation with the Secretary, shall have the authority to suspend public use of state waters or take other action which in the Director's discretion is necessary to protect the public health, safety and welfare.

#### 13.2 Enforcement Actions

If upon an investigation pursuant to Section 11, the Director has reason to believe that any provision of these regulations promulgated pursuant hereto, or any any water quality certification, has been violated the Director shall within 10 days either:

- (1) Issue a Notice of Violation or request to the correct the violation to the alleged violator; or
- (2) Issue a Proposed Administrative Order and conduct a hearing pursuant to subsection 12.4 of these regulations; or

(3) When the Director has elected to issue a Notice of Violation and request to correct, and the alleged violator has not complied within ten (10) working days from the receipt of the notice, the Director shall immediately issue a Proposed Administrative Order and conduct a hearing pursuant to subsection 12.4 of these regulations. Such orders may include but are not limited to a payment of a civil fine, take corrective action, or to cease and desist.

(4) The Director may order any person to pay a civil fine of not more than \$1,000.00 for each day for each violation of the Act, any regulations adopted pursuant to the Act, any permit, license, or certification issued pursuant to the Act and such regulations.

### 13.3 Procedures for Administrative Orders

The Director may issue an proposed Administrative Order for each violation of the regulations adopted pursuant to the CNMI Water Quality Standards, or any conditions of the water quality certification issued pursuant to the regulations. Each day of continued violation after issuance of written notice by the Director or designee and the expiration of any reasonable period allowed for corrective action is a separate offense.

The issuance of the proposed Administrative Order will include the schedule of a hearing conducted pursuant to 1 CMC Section 9109 and 9110. Notwithstanding any other provision of law, hearings may be public or closed at the discretion of the agency.

### 13.4 Settlement

The respondent may also request an informal Settlement Conference. If a settlement is reached, the parties shall forward a proposed consent order for the approval of both the Director and the Secretary. If the parties are unable to reach a settlement agreement, the hearing will take place as scheduled.

### 13.5 Hearing Procedures

(a) If a hearing is conducted, the Director or designee will preside over the hearing. The Director shall control the taking of testimony and evidence and shall cause to be made an audio, audio-video, or stenographic record of the hearing. The type of record made shall be the discretion of the Director. Evidence presented at such a hearing need not conform with the prescribed rules of evidence, but may be limited by the Director in any manner she/he reasonably determines to be just and efficient and promote the ends of justice.

(b) The Director shall issue a written decision within (15) working days of the close of the enforcement hearing. The decision shall include written findings of fact and conclusions of law. The standard of proof for such a hearing and decisions shall be the preponderance of the evidence.

(c) At the hearing, the respondent shall also be provided the opportunity to state (1) the circumstances or arguments which are alleged to constitute the grounds of defense, and (2) the facts which respondent intends to place at issue. Failure to admit, deny, or explain any material factual allegation contained in the complaint constitutes an admission of the allegations. Failure to appear or make a written response at the hearing also constitutes an admission of allegations. An oral answer may also be given at the time of hearing.

(d) At the closure of the hearing and review of the facts, an assessment of a penalty may be included and a fine will be levied as part of the Final Administrative Order.

#### 13.6 Failure to Comply with Administrative Order

If the alleged violator has not complied with the Final Administrative Order, the Director may file a civil action initiated through the Commonwealth Courts shall be transmitted through and with the approval of the Secretary and the Attorney General as necessary to enforce these regulations in consonance with, and in accordance with the applicable laws of the CNMI. The Attorney General will institute legal actions to enjoin a violation, continuing violation or threatened violation of these regulations.

#### 13.7 Appeal

An appeal from the final enforcement decision shall be to the Commonwealth Superior Court within thirty (30) calendar days following service of the final agency decision.

#### 13.8 Additional Penalties

The Director may also recover from the violator all costs incurred by the Commonwealth in taking any action necessary to mitigate or reduce any significant adverse effect caused by the violator's failure to comply with these regulations or a certification issued pursuant to these regulations.

#### 13.9 Willful Violations

Any person who knowingly and willfully commits any act in violation of these regulations or conditions imposed in a water

quality certification, and who is found guilty by a court of competent jurisdiction may be punished by a fine of not more than \$50,000.00 or by imprisonment for not more than one (1) year, or both. Any other penalties or remedies provided by these regulations and ordered by the Director shall also remain in effect.

PART 14 SEVERABILITY

If any provision of these Regulations or their application is held to be invalid, such invalidity shall not affect any other provision or application that can be used without the invalid section, and to this end the provisions of these Regulations and their various applications are declared to be severable.

**TABLE A**  
**Aquatic Life Water Quality Criteria (1)**  
**Priority Pollutants**

*Final*  
**DRAFT**  
*Branch 1/27/97*

POLLUTANT	FRESH	WATERS	MARINE	WATERS
	ACUTE	CHRONIC	ACUTE	CHRONIC
Pentachlorophenol	20 <sup>(3)</sup>	13 <sup>(3)</sup>	13	7.9
Aldrin	3.0	-	1.3	-
Dieldrin	2.5	0.0019	0.71	0.0019
Chlordane	2.4	0.0043	.09	0.004
4,4' - DDT	1.1	0.001	0.13	0.001
alpha-Endosulfan	0.22	0.056	0.034	0.0087
beta-Endosulfan	0.22	0.056	0.034	0.0087
Endrin	0.18	0.0023	0.037	0.0023
Heptachlor	0.52	0.0038	0.053	0.0036
Heptachlor epoxide	0.52	0.0038	0.053	0.0036
gamma-BHC (lindane) (Hexachlorocyclohexane-gamma)	2	0.08	0.16	-
PCBs	-	0.014	-	0.03
Toxaphene	0.73	0.0002	0.21	0.0002
Arsenic	360	190	69	36
Cadmium	3.9 <sup>(2)</sup>	1.1 <sup>(2)</sup>	43	9.3
Chromium (III)	1700 <sup>(2)</sup>	210 <sup>(2)</sup>	-	-
Chromium (VI)	16	11	1100	50
Copper	18 <sup>(2)</sup>	12 <sup>(2)</sup>	2.9	2.9
Cyanide (total)	22	5.2	1.0	1.0
Lead	82 <sup>(2)</sup>	3.2 <sup>(2)</sup>	140	5.6
Mercury	2.4	0.012	2.1	0.025
Nickel	1400 <sup>(2)</sup>	160 <sup>(2)</sup>	75	8.3
Selenium	20	5	300	71
Silver	4.1 <sup>(2)</sup>		2.3	-
Zinc	120 <sup>(2)</sup>	110 <sup>(2)</sup>	95	86
Tributyltin	0.44	0.06	0.36	0.01

(1) THESE CRITERIA APPLY TO ALL SURFACE WATERS. THE VALUES GIVEN IN THIS TABLE REFER TO THE TOTAL RECOVERABLE (DISSOLVED PLUS SUSPENDED) AMOUNT OF EACH SUBSTANCE. ALL CRITERIA ARE LISTED AS MICROGRAMS PER LITER (UG/L).

(2) HARDNESS DEPENDENT CRITERIA, VALUE GIVEN IS AN EXAMPLE ONLY AND IS BASED ON A CACO, HARDNESS OF 100 MG/L. CRITERIA FOR EACH CASE MUST BE CALCULATED USING THE APPROPRIATE EQUATIONS IN THE EPA CRITERIA DOCUMENTS. FOR PURPOSES OF CALCULATING FRESHWATER AQUATIC LIFE CRITERIA FOR METALS FROM THE EQUATIONS ~~(THE MINIMUM HARDNESS ALLOWED FOR USE IN THE THOSE EQUATIONS SHALL NOT BE LESS THAN 25 mg/l AS CALCIUM CARBONATE, EVEN IF THE ACTUAL AMBIENT HARDNESS IS LESS THAN 25 mg/l AS CALCIUM CARBONATE)~~ THE MAXIMUM HARDNESS VALUE FOR USE IN THOSE EQUATIONS SHALL NOT EXCEED 400 mg/l AS CALCIUM CARBONATE, EVEN IF THE ACTUAL AMBIENT IS GREATER THAN 400 mg/l AS CALCIUM CARBONATE.

*Hardness*

(3) PH DEPENDENT CRITERIA. VALUE GIVEN IS AN EXAMPLE ONLY AND IS BASED ON A PH OF 7.8. CRITERIA FOR EACH CASE MUST BE CALCULATED USING THE EQUATION IN THE EPA CRITERIA DOCUMENT.

**TABLE B**  
**Human Health Water Quality Criteria (1)**  
**Priority Pollutants**

*Final*  
~~**DRAFT**~~  
*DBrunel 1/27/91*

POLLUTANT	HUMAN HEALTH VALUE	
	Fresh Waters (3)	Marine Waters (3)
Acrolein	320	780
Acrylonitrile <sup>(4)</sup>	0.058	0.65
Benzene <sup>(4)</sup>	1.2	71
Benzidine <sup>(4)</sup>	0.00012	0.00053
Carbon tetrachloride <sup>(4)</sup> (Tetrachloromethane)	0.25	4.4
Chlorobenzene (Monochlorobenzene)	20	21000
Hexachlorobenzene <sup>(4)</sup>	0.00072	0.00074
1,2 - Dichloroethane <sup>(4)</sup>	0.38	99
1,1,1-Trichloroethane	200	
Hexachloroethane <sup>(4)</sup>	1.9	8.74
1,1,2-Trichloroethane <sup>(4)</sup>	0.60	41.8
1,1,2,2-Tetrachloroethane <sup>(4)</sup>	0.17	10.7
Bis (2-chloroethyl) ether <sup>(4)</sup>	0.03	1.36
2,4,6-Trichlorophenol <sup>(4)</sup>	2.1	6.5
Chloroform (HM) <sup>(4)</sup> (Trichloromethane)	5.7	470
1,2-Dichlorobenzene	600	17000
1,3-Dichlorobenzene	400	2600
1,4-Dichlorobenzene	75	2600
3,3'-Dichlorobenzidine <sup>(4)</sup>	0.04	0.077
1;1-Dichloroethylene <sup>(4)</sup>	0.057	3.2
2,4-Dichlorophenol	93	790
1,3-Dichloropropylene (1,3-Dichloropropene) (cis and trans somers)	10	1700
2,4-Dinitrotoluene <sup>(4)</sup>	0.11	9.1
1,2-Diphenylhydrazine <sup>(4)</sup>	0.042	0.56
Ethylbenzene	700	29000

**TABLE B**  
**Human Health Water Quality Criteria (1)**  
**Priority Pollutants**

*Final*  
**~~DRAFT~~**  
*JBranch*  
 1/27/97

POLLUTANT	HUMAN HEALTH VALUE	
	Fresh Waters (2)	Marine Waters (3)
Fluoranthene	300	370
Bis (2-chloroisopropyl)ether	1400	170000
Methylene chloride (HM) <sup>(4)</sup> (Dichloromethane)	4.7	1600
Methyl chloride (HM) <sup>(4)</sup> (Chloromethane)	0.19	15.7
Methyl bromide (HM) <sup>(4)</sup> (Bromomethane)	48	4000
Bromoform (HM) <sup>(4)</sup> (Tribromomethane)	4.3	360
Dichlorobromomethane (HM) <sup>(4)</sup>	0.56	46
Chlorodibromomethane (HM) <sup>(4)</sup>	0.41	34
Hexachlorobutadiene <sup>(4)</sup>	0.45	50
Hexachlorocyclopentadiene	1.0	17000
Isophorone	36	2600
Nitrobenzene	17	1900
2,4-Dinitrophenol	70	14300
4,6-Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	13.4	765
N-Nitrosodimethylamine <sup>(4)</sup>	.00069	8.1
N-Nitrosodiphenylamine <sup>(4)</sup>	4.9	16.1
Pentachlorophenol	0.28	8.2
Phenol	21000	4600000
Bis (2-ethylhexyl)phthalate <sup>(4)</sup>	1.8	5.9
Di-n-butyl phthalate	2700	12000
Diethyl phthalate	23000	120000
Dimethyl phthalate	313000	2900000
Benzo(a) anthracene (PAH) <sup>(4)</sup> (1,2-Benzanthracene)	0.0044	0.049
Benzo(a)pyrene (PAH) <sup>(4)</sup> (3,4-Benzopyrene)	0.0044	0.049
Benzo(b) fluoranthene (PAH) <sup>(4)</sup> (3,4-Benzofluoranthene)	0.0044	0.049
Benzo(k) fluoranthene (PAH) <sup>(4)</sup> (11,12-Benzofluoranthene)	0.0044	0.049
Chrysene (PAH) <sup>(4)</sup>	0.0044	0.049
Anthracene (PAH) <sup>(4)</sup>	9600	110000

**TABLE B**  
**Human Health Water Quality Criteria (1)**  
**Priority Pollutants**

*Final*  
~~**DRAFT**~~  
*O'Brien*  
 1/27/97

POLLUTANT	HUMAN HEALTH VALUE	
	Fresh Waters (2)	Marine Waters (3)
Fluorene (PAH) <sup>(4)</sup>	1300	14000
Dibenzo (ah), anthracene (PAH) (1,2,5,6-Dibenzoanthracene)	0.0044	0.049
Indeno (1,2,3-cd)pyrene (PAH)	0.0044	0.049
Pyrene (PAH) <sup>(4)</sup>	960	11000
Tetrachloroethylene <sup>(4)</sup>	0.8	8.85
Toluene	1000	200000
Trichloroethylene <sup>(4)</sup>	2.7	80.7
Vinyl chloride <sup>(4)</sup> (Chloroethylene)	2.0	525
Aldrin <sup>(4)</sup>	0.00013	0.00014
Dieldrin <sup>(4)</sup>	0.00014	0.00014
Chlordane <sup>(4)</sup>	0.00057	0.00059
4,4'-DDT <sup>(4)</sup>	0.00059	0.00059
4,4'-DDE <sup>(4)</sup>	0.00059	0.00059
4,4'-DDD <sup>(4)</sup>	0.00083	0.00084
alpha-Endosulfan	110	240
beta-Endosulfan	110	240
Endosulfan sulfate	110	240
Endrin	0.76	0.81
Endrin aldehyde	0.76	0.81
Heptachlor <sup>(4)</sup>	.00021	.00021
Heptachlor epoxide <sup>(4)</sup>	0.00028	0.00029
alpha-BHC <sup>(4)</sup> (Hexachlorocyclohexane-alpha)	.0039	.013
beta-BHC <sup>(4)</sup> (Hexachlorocyclohexane-beta)	.014	.046
gamma-BHC (Lindane) <sup>(4)</sup> (Hexachlorocyclohexane-gamma)	0.019	0.063
PCBs	0.000044	0.000045
Toxaphene <sup>(4)</sup>	0.00071	0.00073
Antimony	6	4300
Arsenic <sup>(4)</sup>	9.2	73
Asbestos	30000 fibers/l	-
Beryllium <sup>(4)</sup>	0.0076	0.131
Cadmium	5	-
Chromium (III)	50	3433000
Chromium (VI)	50	-
Cyanide (total)	200	220000
Lead	50	-
Mercury	0.144	0.146
Nickel	3.4	100

Final  
~~DRAFT~~  
 J. B. ...  
 1/27/97

**TABLE B**  
**Human Health Water Quality Criteria (1)**  
**Priority Pollutants**

POLLUTANT	HUMAN HEALTH VALUE	
	FRESH	MARINE
Selenium	10	-
Silver	50	-
Thallium	1.7	6.3
Dioxin (,3,7,8-TCDD) <sup>(4)</sup>	0.000000013	0.000000014
1,2 dichloropropane	0.52	39
1,2 Transdichloroethylene	100	140000
2,4 dimethylphenol	540	2300
acenaphthene	1200	2700
N-nitrosodi-n-propylamine	0.005	1.4
1,2,4 trichlorobenzene	100	940
<p>(1) THE VALUES GIVEN IN THIS TABLE REFER TO THE TOTAL RECOVERABLE (DISSOLVED PLUS SUSPENDED) AMOUNT OF EACH SUBSTANCE. EXCEPT FOR ASBESTOS, ALL CRITERIA ARE LISTED AS MICROGRAMS PER LITER (UG/L).</p>		
<p>(2) THE FRESH WATER VALUES APPLY TO ALL SURFACE FRESH WATERS AND ARE BASED ON TWO ROUTES OF EXPOSURE - INGESTION OF CONTAMINATED AQUATIC ORGANISMS AND DRINKING WATER.</p>		
<p>(3) THE MARINE WATER VALUES APPLY TO ALL SURFACE MARINE WATERS AND ARE BASED ON ONE ROUTE OF EXPOSURE - INGESTION OF CONTAMINATED AQUATIC ORGANISMS ONLY.</p>		
<p>(4) SUBSTANCE CLASSIFIED AS A CARCINOGEN WITH THE VALUE BASED ON AN INCREMENTAL RISK OF ONE ADDITIONAL INSTANCE OF CANCER IN ONE MILLION PERSONS.</p>		