

PROPOSED RULEMAKING

DELAWARE RIVER BASIN COMMISSION

[25 PA. CODE CH. 901]

Toxic Pollutants in Tidal Delaware River

Amendments to the Comprehensive Plan, Water Code and Administrative Manual Regarding the Tidal Delaware River

Notice is hereby given that the Delaware River Basin Commission (Commission) will hold a public hearing in accordance with this notice to receive comments on modifications to its proposed amendments to its Comprehensive Plan, Water Code and Water Quality Regulations concerning water quality criteria for toxic pollutants, and policies and procedures to establish wasteload allocations and effluent limitations for point source discharges to Zones 2 through 5 (Trenton, New Jersey to the Delaware Bay) of the tidal Delaware River.

Dates: The public hearing will be held on Thursday, September 5, 1996, beginning at 10 a.m. and continuing as long as there are people present wishing to testify.

The deadline for inclusion of written comments in the hearing record will be 5 p.m. on September 5, 1996.

Addresses: The hearing will be held in the Goddard Conference Room of the Commission's offices at 25 State Police Drive, West Trenton, New Jersey.

Written comments should be submitted to Susan M. Weisman, Commission Secretary, Delaware River Basin Commission, P.O. Box 7360, West Trenton, New Jersey 08628.

For Further Information Contact: Susan M. Weisman, Commission Secretary at (609) 883-9500 ext. 203.

SUPPLEMENTARY INFORMATION

Background and Rationale

On October 5, 11 and 13, 1995, the Commission held public hearings on proposed amendments to its water quality regulations as noticed in 25 Pa.B. 3478 (August 26, 1995) and 25 Pa.B. 4007 (September 23, 1995). The public hearing record, originally scheduled to close on November 13, 1995, was extended by the Commission at its October 25, 1995, business meeting to December 13, 1995. Oral and written comments were received from 31 individuals and organizations as well as a coalition of 14 industrial and municipal dischargers to the Delaware Estuary.

As a result of comments received on that proposal and discussions with the Commission's Water Quality and Toxics Advisory Committees, the Commission has decided to modify its initial proposal. The proposal, as modified, is described below and is the subject of the September 5, 1996, public hearing.

Persons wishing to testify are requested to notify the Secretary in advance of the hearing.

The subjects of the hearing will be as follows:

Amendments to the Comprehensive Plan, Water Code of the Delaware River Basin and Administrative Manual—Part III Water Quality Regulations

Article 3 of the Water Code and Administrative Manual—Part III Water Quality Regulations sets forth

the water quality standards for the Delaware River Basin; Article 4 the application of those standards. These regulations apply to all waste dischargers, public and private, using the waters of the Delaware River Basin. It is proposed to:

1. Amend Article 3 of the Administrative Manual—Part III Water Quality Regulations, the Comprehensive Plan and Article 3 of the Water Code of the Delaware River Basin as follows:

a. Subsection 3.10.3C. and D. are added to read as follows:

C. Aquatic Life Objectives for Toxic Pollutants. It is the policy of the Commission to designate numerical stream quality objectives for the protection of aquatic life for the Delaware River Estuary (Zones 2 through 5) which correspond to the designated uses of each zone. Aquatic life objectives for the protection from both acute and chronic effects are herein established on a pollutant-specific basis for:

pollutants listed as toxic under section 307(a)(1) of the Clean Water Act for which the U.S. Environmental Protection Agency (EPA) has published final criteria,

other chemicals for which EPA has published final criteria under Section 304(a) of the act, and

pollutants and other chemicals in combinations.

Other toxic substances for which any of the three Estuary states have adopted criteria or standards may also be considered for the development of stream quality objectives.

1. For the purpose of determining compliance with stream quality objectives for the protection of aquatic life, the duration of exposure of aquatic organisms shall be 1 hour for acute objectives and 4 days for chronic objectives.

2. Stream quality objectives for cadmium, chromium, copper, lead, nickel, silver and zinc shall be expressed as the dissolved form of the metal. The factors presented in Tables 3 and 4 shall be used to convert total recoverable criteria published by the U.S. Environmental Protection Agency to dissolved stream quality objectives. In the absence of data to develop a factor for any of the metals, an adjustment factor of 1.0 shall be utilized. Stream quality objectives for other metals shall be expressed as the concentration of the total recoverable form of the metal.

D. Human Health Objectives for Toxic Pollutants. It is the policy of the Commission to designate numerical stream quality objectives for the protection of human health for the Delaware River Estuary (Zones 2 through 5) which correspond to the designated uses of each zone. Stream quality objectives for protection from both carcinogenic and systemic effects are herein established on a pollutant-specific basis for:

pollutants listed as toxic under section 307(a)(1) and other toxic pollutants, and

other chemicals for which EPA has published final criteria under section 304(a) of the act.

Other toxic substances for which any of the three Estuary states have adopted criteria or standards may also be considered for the development of stream quality objectives.

1. An objective to protect against carcinogenic effects shall only be established if the pollutant is classified A, B

or C under the U.S. EPA classification system for carcinogens, and if a cancer potency factor (CPF) exists in IRIS.

2. An objective to protect against systemic effects shall only be established for a pollutant if a reference dose (RfD) exists in IRIS. An additional safety factor of 10 shall be utilized in establishing the stream quality objectives to protect against systemic effects for pollutants classified as carcinogens if a CPF is not available in IRIS.

3. In the absence of toxicological data for an RfD or CPF in IRIS, data published in the 1980 U.S. EPA water quality criteria documents will be considered.

4. In establishing stream quality objectives for carcinogens, the level of risk is established at 10^{-6} or one additional cancer in every 1,000,000 humans exposed for a lifetime (70 years).

5. For the purpose of determining compliance with human health stream quality objectives, the duration of exposure shall be 70 years for carcinogens and 30 days for systemic toxicants.

6. A rate of ingestion of water of 2.0 liters per day is assumed in calculating objectives for river zones where the designated uses include public water supplies after reasonable treatment. A rate of ingestion of fish of 6.5 grams per day (equivalent to consuming a 1/2 pound portion every 35 days) is assumed in calculating freshwater stream quality objectives for human health. A rate of ingestion of fish of 37 grams per day (equivalent to consuming a 1/2 pound portion every 6 days) is assumed in calculating marine stream quality objectives for human health.

7. Maximum Contaminant Levels (MCLs) shall be applied as stream quality objectives in Zones 2 and 3 which are designated for use as public water supplies for those toxic pollutants where the MCL value is more stringent than the calculated human health objectives for carcinogens or systemic toxicants.

8. Numerical criteria for toxic pollutants to protect the taste and odor of ingested water and fish shall be applied as stream quality objectives in the Estuary if these criteria are more stringent than the calculated human health objectives for carcinogens or systemic toxicants.

b. Subsection 3.10.5D. is revised to read as follows:

D. *Streamflow*. Numerical stream quality objectives are based on a minimum consecutive 7-day flow with a 10-year recurrence interval unless otherwise specified.

c. Subsection 3.10.5E. is added to read as follows:

E. *Requests for Modification of Stream Quality Objectives*. The Commission will consider requests to modify the stream quality objectives for toxic pollutants based upon site-specific factors. Such requests shall provide a demonstration of the site-specific differences in the physical, chemical or biological characteristics of the area in question, through the submission of substantial scientific data and analysis. The demonstration shall also include the proposed alternate stream quality objectives. The methodology and form of the demonstration shall be approved by the Commission.

d. Subsections 3.10.6H. through P. are added to read as follows:

H. *IRIS*. The Integrated Risk Information System established and maintained by the U.S. Environmental Protection Agency. An electronic data base containing information on the toxicity and carcinogenicity of individual substances which can be accessed by regulatory agencies and the public.

I. *Carcinogen*. A substance for which there is no level of exposure that does not pose a small, finite probability of inducing benign or malignant tumors.

J. *Systemic Toxicant*. A substance having a threshold exposure which must be exceeded before deleterious effects (other than cancer) are observed in organ systems.

K. *Acute Effects*. Effects (including but not limited to lethality) due to exposure to a toxicant over a short time period.

L. *Chronic Effects*. Effects (including but not limited to reduced reproduction, reduced growth and lethality) due to exposure to a toxicant over a relatively long period of time relative to the life span of the exposed organism.

M. *Cancer Potency Factor (CPF)*. The slope of the dose response curve in the low dose region expressed as the risk per milligram of a toxic substance per kilogram of body weight per day (mg/KG/day)⁻¹.

N. *Reference Dose (RfD)*. The daily exposure to a substance that is likely to be without an appreciable risk of deleterious effects during a lifetime expressed as milligram of the substance per kilogram of body weight per day (mg/KG/day).

O. *Maximum Contaminant Level (MCL)*. The maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

P. *Stream Quality Objectives*. Numeric values for specific pollutants and narrative descriptions of the quality of a waterbody that will assure that the designated uses of the waterbody, including the protection of aquatic life and human health, are achieved.

e. Subsection 3.30.2C.14. is added to read as follows:

14. *Toxic Pollutants*.

a. Applicable MCLs and criteria to protect the taste and odor of ingested water and fish are presented in Tables 5 and 6.

b. Applicable freshwater stream quality objectives for the protection of aquatic life are presented in Table 7.

c. Applicable freshwater stream quality objectives for the protection of human health are presented in Tables 8 and 9.

f. Subsection 3.30.3C.15. is added to read as follows:

15. *Toxic Pollutants*.

a. Applicable MCLs and criteria to protect the taste and odor of ingested water and fish are presented in Tables 5 and 6.

b. Applicable freshwater stream quality objectives for the protection of aquatic life are presented in Table 7.

c. Applicable freshwater stream quality objectives for the protection of human health are presented in Tables 8 and 9.

g. Subsection 3.30.4C.12. is added to read as follows:

12. *Toxic Pollutants*.

a. Applicable criteria to protect the taste and odor of ingested water and fish are presented in Table 6.

b. Applicable freshwater stream quality objectives for the protection of aquatic life are presented in Table 7.

c. Applicable freshwater stream quality objectives for the protection of human health are presented in Tables 8 and 9.

h. Subsection 3.30.5C.11. is added to read as follows:

11. *Toxic Pollutants.* Freshwater stream quality objectives apply in areas upstream of the Delaware Memorial Bridges (River Mile 68.75), and the more stringent of the freshwater or marine stream quality objectives apply in areas below RM 68.75.

a. Applicable criteria to protect the taste and odor of ingested water and fish are presented in Table 6.

b. Applicable freshwater and marine stream quality objectives to protect aquatic life are presented in Table 7.

c. Applicable freshwater and marine stream quality objectives to protect human health are presented in Tables 8 and 9.

Table 3: Factors for Converting Total Recoverable Freshwater Objectives for Metals for the Protection of Aquatic Life to Dissolved Objectives in the Delaware River Estuary.

METAL	Conversion Factor ¹
Cadmium	0.651
Chromium (Trivalent)	0.277
Chromium (Hexavalent)	0.919
Copper	0.908
Lead	0.723
Nickel	0.846
Silver	0.850
Zinc	0.950

Table 4: Factors for Converting Total Recoverable Marine Objectives for Metals for the Protection of Aquatic Life to Dissolved Objectives in the Delaware River Estuary.

METAL	Conversion Factor ¹
Cadmium	0.994
Chromium (Hexavalent)	0.993
Copper	0.832
Lead	0.951
Nickel	0.990
Silver	0.850
Zinc	0.946

1—Conversion Factor equals the dissolved concentration divided by the total recoverable concentration.

Table 5: Maximum Contaminant Levels to be Applied as Human Health Stream Quality Objectives in Zones 2 and 3 of the Delaware River Estuary.

Parameter	Maximum Contaminant Level (µ/l)
Antimony	6
Barium	2.0 mg/l
Cadmium	5
Chromium (total)	100
Nickel	100
Selenium	50
1,2 - trans - Dichloroethene	100
1,2 - Dichloropropane	5
Ethylbenzene	700
gamma - BHC (Lindane)	0.2
1,2,4 - Trichlorobenzene	70
Total Trihalomethanes	100

Table 6: Criteria to protect the Taste and Odor of Ingested Water and Fish to be Applied as Human Health Stream Quality Objectives in all Zones of the Delaware River Estuary.

Parameter	STREAM QUALITY OBJECTIVE (µ/l)
Phenol	300
2 - Chlorophenol	0.1
2,4 - Dichlorophenol	0.3
2,4 - Dimethylphenol	400
4 - Chloro - 3 - methylphenol	3.0 mg/l
Pentachlorophenol	30
Acenaphthene	20
Chlorobenzene	20
Hexachlorocyclopentadiene	1.0
Nitrobenzene	30

Table 7: Stream Quality Objectives for Toxic Pollutants for the Protection of Aquatic Life in the Delaware River Estuary.

Parameter	Freshwater Objectives (µg/l)		Marine Objectives (µg/l)	
	Acute	Chronic	Acute	Chronic
Metals (Values indicated are total recoverable; see Section 3.10.3.C.2. for form of metal)				
Aluminum	750	87	-	-
Arsenic (trivalent)	360	190	69	36
Cadmium	$e^{(1.128 \cdot \text{LN}(\text{Hardness}) - 3.828)}$	$e^{0.7852 \cdot \text{LN}(\text{Hardness}) - 3.49}$	43	9.3
Chromium (trivalent)	$e^{(0.8190 \cdot \text{LN}(\text{Hardness}) + 3.688)}$	$e^{(0.8190 \cdot \text{LN}(\text{Hardness}) + 1.561)}$	-	-
Chromium (hexavalent)	16	11	1,100	50
Copper	$e^{0.9422 \cdot \text{LN}(\text{Hardness}) - 1.464}$	$e^{0.8545 \cdot \text{LN}(\text{Hardness}) - 1.465}$	5.3	3.4
Cyanide (total)	22	5.2	1.0	-
Lead	48	16	220	8.5

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Parameter	Freshwater Objectives (µg/l)		Marine Objectives (µg/l)	
	Acute	Chronic	Acute	Chronic
Mercury	2.4	0.012	2.1	0.025
Nickel	$e^{(0.846 \cdot \text{LN}(\text{Hardness}) + 3.3612)}$	$e^{(0.846 \cdot \text{LN}(\text{Hardness}) + 1.1645)}$	75	8.3
Selenium	20	5.0	300	71
Silver	$e^{(1.72 \cdot \text{LN}(\text{Hardness}) - 6.52)}$	-	2.3	-
Zinc	$e^{(0.8473 \cdot \text{LN}(\text{Hardness}) + 0.8604)}$	$e^{(0.8473 \cdot \text{LN}(\text{Hardness}) + 0.7614)}$	95	86
Pesticides/PCBs				
Aldrin	1.5	-	0.65	-
gamma - BHC (Lindane)	1.0	0.08	0.08	-
Chlordane	1.2	0.0043	0.045	0.004
Chlorpyrifos (Dursban)	0.083	0.041	0.011	0.0056
DDT and metabolites (DDE & DDD)	0.55	0.001	0.065	0.001
Dieldrin	1.25	0.0019	0.355	0.0019
Endosulfan	0.11	0.056	0.017	0.0087
Endrin	0.09	0.0023	0.019	0.0023
Heptachlor	0.26	0.0038	0.027	0.0036
PCBs (Total)	1.0	0.014	5.0	0.03
Parathion	0.065	0.013	-	-
Toxaphene	0.73	0.0002	0.21	0.0002
Acid Extractable Organics				
Pentachlorophenol	$e^{(1.005 \cdot \text{pH} - 4.83)}$	$e^{(1.005 \cdot \text{pH} - 5.29)}$	13	7.9
Indicator Parameters				
Whole Effluent Toxicity	0.3 Toxic Units _{acute}	1.0 Toxic Units _{chronic}	0.3 TU _a	1.0 TU _c

Table 8: Stream Quality Objectives for Carcinogens for the Delaware River Estuary.

Parameter	EPA CLASS.	FRESHWATER OBJECTIVES (µg/l)		MARINE OBJECTIVES (µg/l)
		FISH & WATER INGESTION	FISH INGESTION ONLY	FISH INGESTION ONLY
Arsenic	A	50.0	-	-
Beryllium	B2	0.00767	0.132	0.0232
Aldrin	B2	0.00189	0.0226	0.00397
alpha - BHC	B2	0.00391	0.0132	0.00231
Chlordane	B2	0.000575	0.000588	0.000104
DDT	B2	0.000588	0.000591	0.000104
DDE	B2	0.00554	0.00585	0.00103
DDD	B2	0.00423	0.00436	0.000765
Dieldrin	B2	0.000135	0.000144	0.0000253
Heptachlor	B2	0.000208	0.000214	0.0000375
Heptachlor epoxide	B2	0.000198	0.000208	0.0000366
PCBs (Total)	B2	0.0000444	0.0000448	0.0000079
Toxaphene	B2	0.000730	0.000747	0.000131
Acrylonitrile	B1	0.0591	0.665	0.117
Benzene	A	1.19	71.3	12.5
Bromoform	B2	4.31	164.0	28.9

Parameter	EPA CLASS.	FRESHWATER OBJECTIVES (µg/l)		MARINE OBJECTIVES (µg/l)
		FISH & WATER INGESTION	FISH INGESTION ONLY	FISH INGESTION ONLY
Bromodichloromethane	B2	0.559	55.7	9.78
Carbon tetrachloride	B2	0.254	4.42	0.776
Chlorodibromomethane	C	0.411	27.8	4.88
Chloroform	B2	5.67	471.0	82.7
1,2 - Dichloroethane	B2	0.383	98.6	17.3
1,1 - Dichloroethene	C	0.0573	3.20	0.562
1,3 - Dichloropropene	B2	87.0	14.1	2.48
Methylene chloride	B2	4.65	1,580	277
Tetrachloroethene	B2	0.80	8.85	1.55
1,1,1,2 - Tetrachloroethane	C	1.29	29.3	5.15
1,1,2,2 - Tetrachloroethane	C	0.172	10.8	1.89
1,1,2 - Trichloroethane	C	0.605	41.6	7.31
Trichloroethene	B2	2.70	80.7	14.2
Vinyl chloride	A	2.00	525.0	92.9
Benzidine	A	0.000118	0.000535	0.000094
3,3 - Dichlorobenzidine	B2	0.0386	0.0767	0.0135
PAHs				
Benz[a]anthracene	B2	0.00171	0.00177	0.00031
Benzo[b]fluoranthene	B2	0.000455	0.000460	0.000081
Benzo[k]fluoranthene	B2	0.000280	0.000282	0.000049
Benzo[a]pyrene	B2	0.0000644	0.0000653	0.0000115
Chrysene	B2	0.0214	0.0224	0.00394
Dibenz[a,h]anthracene	B2	0.0000552	0.0000559	0.0000098
Indeno[1,2,3-cd]pyrene	B2	0.0000576	0.0000576	0.0000101
Bis (2-chloroethyl) ether	B2	0.0311	1.42	0.249
Bis (2-ethylhexyl) phthalate	B2	1.76	5.92	1.04
Dinitrotoluene mixture (2,4 & 2,6)	B2	17.3	1420	249
1,2 - Diphenylhydrazine	B2	0.0405	0.541	0.095
Hexachlorobenzene	B2	0.000748	0.000775	0.000136
Hexachlorobutadiene	C	0.445	49.7	8.72
Hexachloroethane	C	1.95	8.85	1.56
Isophorone	C	36.3	2590	455
N-Nitrosodi-N-methylamine	B2	0.000686	8.12	1.43
N-Nitrosodi-N-phenylamine	B2	4.95	16.2	2.84
N-Nitrosodi-N-propylamine	B2	0.00498	1.51	0.265
Pentachlorophenol	B2	0.282	8.16	1.43
2,4,6 - Trichlorophenol	B2	2.14	6.53	1.15
Dioxin (2,3,7,8 - TCDD)	-	1.3 x 10 ⁻⁸	1.4 x 10 ⁸	2.4 x 10 ⁹

Table 9: Stream Quality Objectives for Systemic Toxicants for the Delaware River Estuary.

Parameter	EPA CLASS.	FRESHWATER OBJECTIVES (µg/l)		MARINE OBJECTIVES (µg/l)
		FISH & WATER INGESTION	FISH INGESTION ONLY	FISH INGESTION ONLY
Antimony		14.0	4,310	757
Arsenic	A	9.19	73.4	12.9
Beryllium	B2	165	2,830	498
Cadmium		14.5	84.1	14.8
Chromium (Trivalent)		33,000	673,000	118,000
Hexavalent chromium	A	166	3,370	591
Mercury	D	0.144	0.144	0.144
Nickel		607	4,580	805
Selenium	D	100	2,020	355
Silver	D	175	108,000	18,900
Thallium		1.70	6.20	1.10
Zinc		9110	68,700	12,100
Aldrin	B2	0.96	11.5	2.03
gamma - BHC (Lindane)		7.38	24.9	4.37
Chlordane	B2	0.0448	0.0458	0.00805
DDT	B2	0.100	0.100	0.0176
Dieldrin	B2	0.108	0.115	0.020
Endosulfan		111	239	42.0
Endrin	D	0.755	0.814	0.143
Heptachlor	B2	0.337	0.344	0.060
Heptachlor epoxide	B2	0.0234	0.0246	0.00433
Total PCBs	B2	0.00839	0.00849	0.00149
Acrolein		320	780	137
Ethylbenzene		3,120	28,700	5,050
Bromoform	B2	682	25,900	4,560
Bromodichloromethane	B2	693	69,000	12,100
Dibromochloromethane	C	690	46,600	8,190
Carbon tetrachloride	B2	23.1	402	70.6
Chloroform	B2	346	28,700	5,050
Chlorobenzene	D	677	20,900	3,670
1,1 - Dichloroethene	C	309	17,300	3,040
1,2 - trans - Dichloroethene		696	136,000	23,900
1,3 - Dichloropropene	B2	10.4	1,690	297
Methyl bromide		49.0	N/A	N/A
Methylene chloride	B2	2,090	710,000	125,000
1,1,2 - Trichloroethane	C	138	9,490	1,670
Tetrachloroethene		318	3,520	618
1,1,1,2 - Tetrachloroethane	C	1,000	22,400	3,940
Toluene		6,760	201,000	35,400
Acenaphthene		1,180	2,670	469
Anthracene	D	4,110	6,760	1,190
Benzidine	A	81.8	369	64.9

Parameter	EPA CLASS.	FRESHWATER OBJECTIVES (µg/l)		MARINE OBJECTIVES (µg/l)
		FISH & WATER INGESTION	FISH INGESTION ONLY	FISH INGESTION ONLY
Bis (2-chloroisopropyl) ether		1,390	174,000	30,600
Bis (2-ethylhexyl) phthalate	B2	492	1,660	291
Butylbenzyl phthalate	C	298	520	91.4
Diethyl phthalate	D	22,600	118,000	20,700
Dimethyl phthalate	D	313,000	2,990,000	526,000
Dibutyl phthalate	D	2,710	12,100	2,130
1,2 - Dichlorobenzene	D	2,670	17,400	3,060
1,3 - Dichlorobenzene	D	414	3,510	617
1,4 - Dichlorobenzene		419	3,870	677
2,4 - Dinitrotoluene		69.2	5,670	996
Fluoranthene		296	375	65.8
Fluorene	D	730	1,530	268
Hexachlorobenzene	B2	0.958	0.991	0.174
Hexachlorobutadiene	C	69.4	7,750	1,360
Hexachlorocyclopentadiene		242	17,400	3,050
Hexachloroethane	C	27.3	124	21.7
Isophorone	C	6,900	492,000	86,400
Nitrobenzene	D	17.3	1,860	327
Pyrene	D	228	291	51.1
1,2,4 - Trichlorobenzene	D	255	945	166
2 - Chlorophenol		122	402	70.6
2,4 - Dichlorophenol		92.7	794	139
2,4 - Dimethylphenol		536	2,300	403
2,4 - Dinitrophenol		70	14,300	2,500
Pentachlorophenol	B2	1,010	29,400	5,160
Phenol		20,900	4,620,000	811,000

2. Amend Article 4 of the Administrative Manual—Part III Water Quality Regulations as follows:

a. Subsection 4.20.4B. is revised to read as follows:

B. so that the assimilation of such waste by the interstate waters will not result in a violation of such water quality criteria.

1. For the purposes of establishing wasteload allocations for toxic pollutants for the Delaware River Estuary, the lower of the 95th percentile of the available data at the appropriate criteria duration, or the water quality criterion at or above the head of the tide shall be used to establish boundary conditions.

b. Subsection 4.20.5 is added to read as follows:

4.20.5 Application of Criteria for Toxic Pollutants.

A. Delaware River Estuary.

1. In establishing wasteload allocations and other effluent requirements, exceedances of stream quality objectives for the protection of aquatic life from acute effects may be permitted in small areas near outfall structures, provided that all of the following requirements are met.

a. The dimensions of the area where objectives are exceeded shall be limited to the more stringent of the following restrictions:

1). a distance of 50 times the discharge length scale in any direction from the outfall structure, or

2). a distance of 5 times the local water depth in any direction from the outfall structure.

b. Stream quality objectives shall not be exceeded in areas designated as critical habitat for fish and benthic organisms.

c. Stream quality objectives shall not be exceeded where effluent flows over exposed benthic habitat prior to mixing with the receiving waters.

d. A zone of passage for free-swimming and drifting organisms equal to 50% of the surface width of the river at the location of the discharge shall be provided.

e. The total surface area of the Delaware River Estuary where stream quality objectives for the protection of aquatic life from acute effects are exceeded shall be limited to:

- 1). 5% of the total surface area of Zones 2, 3 and 4, and
- 2). 5% of the total surface area of Zone 5.

f. Upon the request of one or more dischargers, the Executive Director may consider requests for alternatives to the requirements of subsections a. through e. of section 4.20.5.A.1. Such requests shall provide a demonstration that the alternative requirement requested will not adversely impact free-swimming, drifting and benthic organisms. The demonstration(s) shall provide a sound rationale, and be supported by substantial scientific data and analysis. The methodology and form of the demonstration shall be approved by the Executive Director. The Executive Director may reject any requests which are not substantive, and may establish more restrictive areas where acute stream quality objectives may be exceeded based upon the evaluation of submitted demonstrations.

g. The Executive Director may consider requests to conduct studies to confirm the mixing characteristics and the predicted dilution isopleths of a discharge. Such requests shall provide a demonstration based upon sound scientific and technical rationale, and be supported by substantial data and analysis. The methodology and form of the demonstration shall be approved by the Executive Director. The Executive Director may reject any requests which are not substantive, and may establish areas where acute stream quality objectives may be exceeded that are less or more restrictive based upon the evaluation of submitted demonstrations.

2. For those stream quality objectives whose numerical value is related to hardness, a median hardness value of 74 mg/l as CaCO₃ shall be used to represent the hardness of the receiving water for the purposes of determining the numerical value of those objectives. This median hardness value shall be used to establish the aquatic life objective for protection from chronic effects; and in conjunction with the site-specific median hardness value of the effluent and the dilution factor, the aquatic life objective for protection from acute effects.

3. For those stream quality objectives whose numerical value is related to pH, a median pH value of 7.1 shall be used to represent the pH of the receiving water for the purposes of determining the numerical value of those objectives. This median pH value shall be used to establish the aquatic life objective for protection from chronic effects; and in conjunction with the site-specific median pH value of the effluent and the dilution factor, the aquatic life objective for protection from acute effects.

4. *Assumptions for Estuarine Mixing.* Complete vertical and lateral mixing shall be assumed in the Estuary in applying chronic aquatic life and human health stream quality objectives under design conditions. Site-specific data which does not support this assumption will be considered by the Commission in establishing allocations to discharges.

5. *Deriving Total Recoverable Wasteload Allocations for Metals.* Wasteload allocations developed from the dissolved stream quality objectives for seven cationic metals shall be converted into total recoverable wasteload allocations using a translator. The translator shall be determined using procedures specified by the Commission. In the absence of data to develop a translator for any of the metals, the reciprocal of the factor used to convert the total recoverable water quality criteria to a dissolved stream quality objective shall be used for the translator.

B. Definitions.

1. *Critical Habitat.* Specific areas within the tidal Delaware River which are or could be occupied by a

species absent the toxic effect of pollutants; and which have those physical, chemical and biological features which are essential to the conservation and maintenance of the Delaware Estuary population. The Commission shall identify and determine critical habitat within the tidal Delaware River. Such determination shall consider the spatial and temporal requirements of the species including critical life stages. Determinations shall be governed by the Commission's Rules of Practice and Procedure relating to review, hearing and decisions of objections thereto.

2. *Discharge Length Scale.* The square root of the cross-sectional area of any discharge outlet.

c. Subsection 4.30.7A.4.a. is revised to read as follows:

a. The reserve in each zone shall be utilized to accommodate new discharges or major revisions to an allocation, or any reallocation, when appropriate in the judgment of the Commission.

d. Subsection 4.30.7A.5. is revised to read as follows:

5. *Reallocations.*

a. *Carbonaceous Oxygen Demand*

1). All allocations shall be subject to review by the Commission and, after such review, the Commission may make such reallocation as it deems necessary.

2). If any factors upon which an individual allocation is based change significantly, application shall be made to the Executive Director for a revised allocation.

3). Whenever the reserve in a zone approaches depletion, or when the full use of the assimilative capacity is approached, or when in the judgment of the Commission, the allocations existing at that time are no longer equitable, the capacity in the zone, minus a reserve, will be reallocated among the waste dischargers in that zone.

b. *Toxic Pollutants*

1). All allocations shall be subject to review by the Commission and, after such review, the Commission may make such reallocation as it deems necessary.

2). If any factors upon which an individual allocation is based change significantly, application shall be made to the Executive Director for a revised allocation. The Executive Director shall provide notice to interested and affected parties prior to establishing the revised allocation.

3). Allocations shall, as a minimum, be reviewed and, if required, revised every 5 years, or as directed by the Commission.

e. Subsection 4.30.7A.8. is added to read as follows:

8. *Design Effluent Flow.* For the purpose of determining the waste assimilative capacity of a stream and the wasteload allocations for discharges of toxic pollutants, the following design effluent flows will be used:

a. For industrial wastewater treatment plant discharges covered by Effluent Limitations Guidelines (ELG) promulgated by the U.S. EPA, the effluent design flow shall be the average daily flow associated with:

1). the month having the highest monthly production rate of the previous 12 months or, if greater,

2). the year having the highest annual production rate of the previous 5 years.

b. If the discharge from an industrial wastewater treatment plant is not covered by Effluent Limitations Guidelines (ELG) promulgated by the U.S. EPA, is mixed

with stormwater or cooling water or production data are not available, the effluent design flow shall be the average daily flow associated with:

1). the month with the highest monthly flow rate of the previous 12 months, or if greater,

2). the year having the highest annual flow rate of the previous 5 years.

c. For municipal wastewater treatment plant discharges, the effluent design flow shall be the higher of:

1). the average daily flow of the plant for the previous 3 years including a growth factor based upon a 5-year projection, if available, or

2). the design capacity of the plant expressed as the annual average flow.

f. Subsection 4.30.7B.2. is added to read as follows:

2. *Toxic Pollutants.* Under sections 3.10.4.E. and 4.30.7.A. of these regulations, the Commission shall establish wasteload allocations and other effluent requirements that may be necessary to meet the stream quality objectives for toxic pollutants contained in section 3.30.

a. *Reserve.* A reserve allocation of 5% of the Total Maximum Daily Load (TMDL) shall be established as a part of an allocation or reallocation, by increasing the effluent design flow by 5%.

b. *Margin of Safety.* As part of an allocation or reallocation, a proportion of the Total Maximum Daily Load shall be established as a margin of safety. The proportion established shall reflect the degree of uncertainty in the data and resulting water quality-based controls.

c. *Allocation to Discharges.*

1). Wasteload allocations shall be established for continuous point source discharges to address acute aquatic life protection, chronic aquatic life protection and both carcinogenic and systemic toxicants.

a). The water quality objective for the establishment of any allocation or reallocation shall be the stream quality objectives contained in section 3.30. If the background concentration of a toxic pollutant at the appropriate criteria duration exceeds the stream quality objective as a result of loadings from sources not subject to control, then the water quality objective shall be the background concentration of the pollutant.

b). The minimum flows for aquatic life protection and to protect the taste and odor of ingested water and fish are based on a minimum consecutive 7-day flow with a 10-year recurrence interval for all tributaries; and for the Delaware River, a flow of 2500 cfs at Trenton. For the protection of human health, the harmonic mean flow shall be used for carcinogens, and the minimum consecutive 30-day flow with a 5-year recurrence interval shall be used for systemic toxicants.

2). Allocations shall be determined by the Executive Director using the procedure described in section 4.30.7.B.2.c.4). or alternative procedures that are consistent with the doctrine of equitable apportionment, and achieve the following:

a). assure compliance with applicable stream quality objectives;

b). provide maximum equity among competing discharges; and

c). minimize the overall cost of compliance.

3). The loadings of toxic pollutants identified in section 4.30.7.B.2.c. shall be allocated among individual continuous point source discharges which meet any of the following criteria:

a). The discharge has an existing permit limit for the parameter,

b). Effluent data indicates the presence of the parameter, or

c). The reasonable potential exists for the parameter to occur in the discharge.

4). Allocations for continuous point source discharges will be based upon the equal marginal percent reduction procedure which has been determined to be consistent with the requirements of section 4.30.7.B.2.c.2). This procedure requires all dischargers, whether they are part of a multiple discharge wasteload allocation scenario or not, to provide treatment of their wastewater to achieve the applicable water quality standard; and in addition, requires some dischargers to provide additional treatment due to the cumulative impact of all discharges.

a). Alternative wasteload allocation procedures may be considered by the Commission if they provide timely compliance with section 4.30.7.B.2.c.2). and include the consent of all dischargers affected by the alternative procedure.

b). Discharges meeting any of the requirements of section 4.30.7.B.2.c.3). will be assigned an initial loading based upon the following information in order of preference:

i). The average monthly limit obtained from effluent guideline limitations promulgated by the U.S. Environmental Protection Agency for the point source category applicable to the discharge,

ii). Any average monthly limitation for the parameter in the current discharge permit,

iii). Monitoring data of sufficient quantity and quality, as determined by the Executive Director, to characterize the concentration of the parameter in the discharge, or

iv). Minimum performance standards established by the Executive Director for industrial and municipal wastewater treatment plants discharging to the tidal Delaware River. In assigning the initial loading, the average loading at the appropriate criteria duration will be calculated using the coefficient of variation (CV) calculated from monitoring data or a default value of 0.6 in the absence of data of sufficient quantity and quality, as determined by the Executive Director.

c). Discharges contributing to an exceedance of a stream quality objective due to the cumulative effect of all discharges may not be required to provide additional treatment or loading reduction if the discharge does not represent a significant proportion of the marginal loading.

5). Allocations established by the Executive Director and reallocations required under section 4.30.7.A.5.b.2). shall be published in a document containing the specific procedures, tools and assumptions used to derive the allocations.

6). Wasteload allocations established under section 4.30.7.B.2.c. shall be referred to the appropriate agency of the signatory parties, respectively, for use, as appropriate, in developing effluent limitations, schedules of compliance and other requirements in permits.

d. *Adjustment for Pollutants in Intake Water.* Wasteload allocations established for an industrial discharge may be

adjusted by the Executive Director, in consultation with the appropriate agency of the signatory parties, to account for pollutants present in water withdrawn for use by the facility from the receiving water provided that the following conditions are met:

- 1). In the absence of pollutants in the water withdrawn, there would be no exceedance of the stream quality objectives for toxic pollutants;
- 2). Pollutants in the discharge resulting from any other activity, operation or materials used or produced at the facility do not significantly contribute to an exceedance of the stream quality objectives for toxic pollutants contained in section 3.30.;
- 3). No statistically significant difference can be detected between the intake and effluent concentrations and loadings of a toxic pollutant based upon a rigorous analysis of data representative of operating and ambient conditions at the facility; and
- 4). No practicable alternative source of intake water is available.

g. Subsection 4.30.7C. is added to read as follows:

C. *Definitions.*

1. *Wasteload Allocation.*

The portion of the Total Maximum Daily Load of a body of water or section thereof that is allocated to an existing or future point source of pollution. Or, any limitation on the loading and/or concentration of a pollutant discharged from a point source required to ensure that stream quality objectives are not exceeded.

2. *Total Maximum Daily Load (TMDL).* The maximum daily loading of a pollutant from all sources which still ensures that water quality objectives are met.

3. *Margin of Safety.* A factor that takes into account any uncertainty or lack of knowledge about the relationship between pollutant loadings and the quality of the receiving water.

4. *Marginal Load.* The portion of the loading of a pollutant that contributes to an exceedance of a stream quality objective when the cumulative loading from all point sources is considered.

5. *Effluent Limitations Guidelines.* Effluent limitations for pollutants for categories and classes of point sources promulgated by the U.S. Environmental Protection Agency under section 301 of the Clean Water Act which reflect the best available treatment technology.

6. *Harmonic Mean Flow.* The flow value corresponding to the number of daily flow measurements divided by the sum of the reciprocals of the flows.

7. *Background Concentration.* The concentration of a toxic pollutant at any point in the Estuary that results from loadings from tributaries, sediments (if applicable), and any point or non-point sources not subject to control in the current allocation or reallocation.

8. *Continuous Point Source Discharge.* A discharge of wastewater permitted under the National Pollutant Discharge Elimination System (NPDES) which occurs without interruption during the operating hours of a facility except for infrequent shutdowns, and is not primarily dependent on precipitation-induced flows.

9. *Long-term Average Concentration.* The mean concentration of a toxic pollutant in the effluent that represents the desired performance of a wastewater treatment plant.

10. *Minimum Performance Standards.* The long-term average concentration for an parameter for which stream quality objectives have been established under section 3.10.3.C. or D.

a. For volatile and non-volatile organic chemicals, the standard is the maximum for a monthly average specified in the effluent guideline limitations for the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) industrial category, or the highest reported effluent value for activated sludge treatment specified in the U.S. EPA's Water Engineering Research Laboratory data base.

b. For chlorinated pesticides and polychlorinated biphenyls, the standard is the Practical Quantitation Limit (PQL) for the compound.

c. For metals and indicator parameters, the standard is the average concentration of the parameter in industrial or municipal treatment plant discharges to the Estuary.

3. Amend Interpretive Guideline No. 1 of the Administrative Manual—Part III Water Quality Regulations as follows:

a. Subsection A.(1)a. is revised to read as follows:

a. *Toxic Substances.* The following limits shall apply in Basin waters other than Zones 2, 3, 4 and 5.

b. Subsection B.(2)b. is revised to read as follows:

b. *Toxicity.* The following requirements shall apply in Basin waters other than Zones 2, 3, 4 and 5.

Delaware River Basin Compact, 75 Stat. 688.

SUSAN M. WEISMAN,
Secretary

Fiscal Note: 68-33. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION PART V. DELAWARE RIVER BASIN COMMISSION CHAPTER 901. GENERAL PROVISIONS

§ 901.2. Water quality.

The Basin Regulations—Water Code and Water Quality Standards as set forth in 18 CFR Part 410 [(1994)] 1996 are hereby incorporated by reference and made a part of this title.

[Pa.B. Doc. No. 96-1206. Filed for public inspection July 26, 1996, 9:00 a.m.]

DEPARTMENT OF AGRICULTURE

[7 PA. CODE CH. 59]

Deletion of Grade AA Regulatory Standards for Milk

The Department of Agriculture (Department) proposes to amend Chapter 59 (relating to milk sanitation) by deleting all current provisions that allow milk to be designated Grade AA.

The statutory authority for these regulatory amendments is the act of July 2, 1935 (P. L. 589, No. 210) (31 P. S. §§ 645—660f), which authorizes the Department to

regulate the production, processing, storage and packaging of milk to safeguard human health.

Under current regulations, milk processed within this Commonwealth may be designated Grade AA if it meets prescribed chemical, bacteriological and temperature standards. This Grade AA standard, though, is in direct conflict with the requirements of the Nationwide compact under which Grade A milk moves unimpeded in interstate commerce. The regulatory amendment is necessary to keep Pennsylvania-produced milk and milk products competitive in interstate commerce, and to prevent the imposition of embargoes or burdensome inspection or certification requirements upon Pennsylvania-produced milk and milk products by other states.

The Commonwealth is a participant in the National Conference of Interstate Milk Shippers (NCIMS). The NCIMS is an organization created by the United States Food and Drug Administration Milk Safety Branch, state regulatory agencies and the Nation's dairy industry to standardize regulations to ensure the safety of the milk supply and to facilitate the interstate shipment of milk. Prior to NCIMS individual states—and even individual municipalities—had established milk sanitation or testing requirements that impeded the flow of milk in interstate commerce. The NCIMS developed a uniform set of standards—the Grade A Pasteurized Milk Ordinance—which, when adhered to by a member state, allows that state's milk to move in interstate commerce to other member states without those states imposing any further sanitation or testing requirements.

Since the 1950's, the Department has allowed limited use of a Grade AA designation for certain dairy products produced in this Commonwealth. As early as 1953, though, the Department and the Commonwealth's dairy processors were aware the NCIMS standards for Grade A milk prohibited the use of super-grade designations such as Grade AA.

The Commonwealth gained NCIMS in compliance status in the late 1970's.

The Department revised its milk sanitation regulations in 1982 and planned to delete the provisions relating to Grade AA at that time. A committee of dairy processors requested the retention of Grade AA standards and agreed to refrain from seeking certification for the interstate shipment of their pasteurized milk in exchange for the retention of these standards. The Department acceded to this request and retained the Grade AA standards.

Although the Department believed retention of the Grade AA standard for certain milk processed and sold only within this Commonwealth would not put other NCIMS member states at a competitive disadvantage, this has not proven to be the case. Out-of-State dairy processors who produce Grade A milk in accordance with the NCIMS Grade A Pasteurized Milk Ordinance (PMO) and attempt to market their milk in this Commonwealth are at some disadvantage when competing with products bearing a Grade AA designation.

On December 27, 1995, the NCIMS Council III (of which the Commonwealth is a member) ruled, in a 19-to-1 decision, that the Commonwealth's Grade AA standards violate the NCIMS's Grade A PMO. On January 8, 1996, the NCIMS Executive Board adopted this decision.

The NCIMS has made clear its intention to designate the Commonwealth as a state that is not in compliance with the NCIMS Grade A PMO if the Commonwealth

does not promptly delete its Grade AA standard. The Grade A PMO plainly states (at Part II, Section 4) that:

... The use of super grade designations shall not be permitted. Grade designations such as "Grade AA Pasteurized" ... give the consumer the impression that such a grade is significantly safer than Grade A. Such an implication is false, because the Ordinance requirements for Grade A pasteurized, ultrapasteurized or aseptically processed milk when properly enforced, will insure that this grade of milk will be as safe as milk can practicably be made.

Grade AA milk represents less than 5% of this Commonwealth's dairy output. Grade A milk, by contrast, represents over 90% of this Commonwealth's dairy output. If the Department deletes its Grade AA regulatory standards, current Grade AA processors will be affected. If the Department fails to delete its Grade AA regulatory standards, the NCIMS will take action that would seriously impede the marketability of Pennsylvania-produced Grade A milk in interstate commerce.

If the NCIMS designates this Commonwealth as a state that is not in compliance with the Grade A PMO, the immediate effect would be to allow member states to embargo Pennsylvania-produced milk or impose sanitation, testing or compositional requirements that would impede the interstate flow of that milk. For example, the state regulatory agency overseeing Maryland's dairy industry has stated it would require Pennsylvania dairy processors to be inspected by Maryland inspection personnel as a prerequisite to the importation of Pennsylvania-produced milk into Maryland.

This Commonwealth is an exporter of dairy products. Its dairy production far outstrips its consumption. The vast majority of this Commonwealth's dairy production is geared for compliance with the NCIMS standards in order to facilitate this export industry. On balance, the Department agrees the Grade AA regulatory standards must be deleted in order to protect this important export industry.

Fiscal Impact

Commonwealth

The proposed amendments would impose no costs and have no fiscal impact upon the Commonwealth.

Political Subdivisions

The proposed amendments would impose no costs and have no fiscal impact upon political subdivisions.

Private Sector

The proposed amendments may impose some costs upon the Pennsylvania-based dairy processors that currently produce milk meeting Grade AA requirements. Although the proposed amendments would decrease the testing costs borne by these dairy processors, these processors might suffer some short-term financial loss as customers familiar with the Grade AA designation on milk containers from these dairy processors encounter Grade A designations for the first time. It is not known whether these losses would be entirely offset by decreased testing costs.

The result of failing to proceed with these proposed amendments would be to subject Pennsylvania-produced milk and milk products to embargoes or testing requirements of other NCIMS member states. The adverse fiscal impact on this Commonwealth's dairy industry would be immediate and dramatic, and would far outweigh any adverse fiscal impact which this Commonwealth's Grade AA dairy processors might suffer if the regulation is promulgated.

General Public

The proposed amendments would impose no costs and have no fiscal impact upon the general public.

Paperwork Requirements

The proposed amendments would not result in an increase in paperwork.

Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), the Department submitted a copy of the proposed amendments on July 17, 1996, to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House and Senate Standing Committees on Agriculture and Rural Affairs. In addition to the proposed amendments, the Department provided IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the Department in compliance with Executive Order 1982-2, "Improving Government Regulations," and Executive Order 1996-1, "Regulatory Review and Promulgation." A copy of this material is available to the public upon request.

If IRRC has an objection to any portion of the proposed amendments, it must notify the Department within 30 days of the close of the public comment period. The notification shall specify the regulatory review criteria which have not been met by that portion. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the proposed amendments, by the Department, the General Assembly and the Governor of the objections raised.

Contact Person

All interested persons are invited to submit written comments regarding the proposed amendments within 30 days following publication in the *Pennsylvania Bulletin*. Comments are to be submitted to the Department of Agriculture, Bureau of Food Safety and Laboratory Services, 2301 North Cameron Street, Harrisburg, PA 17110-9408, Attention: James Dell.

Effective Date

The proposed amendments will become effective upon final adoption.

CHARLES C. BROSIUS,
Secretary

(Editor's Note: A proposal to amend § 59.1(a) remains outstanding at 25 Pa.B. 5510 (December 2, 1995).)

[Grade AA Milk for pasteurization

Temperature—Bulk milk cooled to 40°F (4°C) or less within two hours after milking provided that the blend temperature after the first and subsequent milkings do not exceed 50°F (10°C).

Bacterial limits—Individual producer milk not to exceed 20,000 per ml. prior to commingling with other producer milk.

Growth Inhibitors—No growth inhibitor residue in excess of actionable level as determined by the *B. stearothermophilus* Disc Assay Method or equivalent.

Somatic cell count—Samples exceeding 18mm WMT to be confirmed by DMSCC or acceptable tests. Not to exceed 1,000,000 per ml.

Temperature—Maintained at 45°F or less.

Bacterial limits—Not to exceed 60,000 per ml.

Growth inhibitors—No growth inhibitor residue in excess of actionable levels as determined by the *B. stearothermophilus* Disc Assay Method or equivalent.]

* * * * *

Commingled Grade AA milk

Fiscal Note: 2-108. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 7. AGRICULTURE

PART III. BUREAU OF [FOODS AND CHEMISTRY]FOOD SAFETY AND LABORATORY SERVICES

CHAPTER 59. MILK SANITATION

Subchapter A. PRELIMINARY PROVISIONS

§ 59.1. Definitions.

* * * * *

(b) *Milk and milk products.* The following words and terms, when used in this chapter, [**shall**] have the following meanings, unless the context clearly indicates otherwise:

* * * * *

[**Commingled Grade AA milk**—Commingled milk which will be used in the preparation of Grade AA pasteurized milk.]

* * * * *

[**Grade AA milk for pasteurization**—Milk which conforms to the relevant provisions of this chapter and is used in the preparation of Grade AA pasteurized milk.]

* * * * *

§ 59.12. [Segregation.] (Reserved).

[**Milk to be used in the preparation of Grade AA pasteurized milk shall be completely segregated during receiving, storing, processing and bottling.]**

Subchapter B. STANDARDS FOR MILK AND MILK PRODUCTS

GENERAL PROVISIONS

§ 59.52. Table.

The following table sets forth the chemical, bacteriological and temperature standards for milk and milk products:

* * * * *

[Grade AA pasteurized milk

Temperature—Cooled to 45°F (7°C) or less and maintained thereat.

Bacterial limits—3,000 per ml.

Coliform—Less than 1 per ml.

Phosphatase—Less than 1 microgram per ml. by the Scharer Rapid Method or equivalent.

Growth inhibitors—No growth inhibitor residue in excess of actionable level as determined by the *B. stearothermophilus* Disc Assay Method or equivalent.]

* * * * *

Subchapter C. MISCELLANEOUS PROVISIONS

§ 59.310. Frequency of analyses.

[All required] Required bacteriological, chemical [,] and physical analyses shall be made in Pennsylvania approved dairy laboratories at the following minimum frequencies:

* * * * *

(2) Milk for pasteurization.

(i) Milk for pasteurization shall be tested at least monthly for SPC or PLC, growth inhibitors, temperature [,] and somatic cell count.

[(ii) Grade AA milk for pasteurization shall be tested at least weekly for SPC or PLC and at least monthly for growth inhibitors, temperature and somatic cell count.

(iii) (ii) Condensed milk, dry milk powder [,] and whey powder shall be tested at least monthly for SPC, coliform group [,] and growth inhibitors.

(3) Pasteurized milk, cultured and acidulated products.

[(i) Except as noted in subparagraph (ii), all] All types of pasteurized milk shall be tested at least monthly for standard plate count, coliform group, growth inhibitors [,] and phosphatase activity. Cultured or acidulated products shall be tested at least monthly for coliform group. Milk and cream used in processing of cultured or acidulated [products] products shall be tested at least monthly for phosphatase activity prior to culturing or acidulating.

[(ii) Grade AA pasteurized milk shall be tested at least weekly for standard plate count, coliform group, and phosphatase activity and at least monthly for growth inhibitors.]

* * * * *

[Pa.B. Doc. No. 96-1207. Filed for public inspection July 26, 1996, 9:00 a.m.]