



PHILIPPINE ECONOMIC ZONE AUTHORITY

MEMORANDUM CIRCULAR No. 2021-042

FOR : All PEZA-Registered Enterprises / Developers
FROM : BGen Charito B. Plaza MNSA, PhD
Director General
SUBJECT : Revised DENR General Effluent Standards
DATE : 05 July 2021

In response to the various position papers submitted by PEZA, industry sectors, other government agencies and the efforts of the Anti-Red Tape Authority (ARTA) to address issues related to [DENR Administrative Order 2016-08](#) also known as Water Quality Guidelines and General Effluent Standards of 2016, the DENR has issued revised guidelines on 30 June 2021.

DENR Administrative Order (DAO) 2021-19 "Updated Water Quality Guidelines (WQG) and General Effluent Standards (GES) for Selected Parameters" have provided relaxed values for the following parameters:

1. Ammonia as $\text{NH}_3\text{-N}$;
2. Boron;
3. Copper as Total Copper instead of Dissolved Copper;
4. Fecal Coliform;
5. Phosphate as Total Reactive Phosphorus; and,
6. Sulfate.

We wish to provide herewith, as **Annex A**, a copy of DAO 2021-19 as reference. As such, owners / operators of wastewater treatment plants (WTPs) are required to evaluate if their WTP will pass the revised standards, and if not, shall endeavor to upgrade the treatment process or retrofit to ensure compliance. All other parameters not mentioned in DAO 2021-19 will be covered by the requirements of DAO 2016-08.

For the guidance of all concerned.

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JUN 30 2021

DENR ADMINISTRATIVE ORDER

No. 2021 - 19

**SUBJECT: UPDATED WATER QUALITY GUIDELINES (WQG) AND
GENERAL EFFLUENT STANDARDS (GES) FOR SELECTED
PARAMETERS**

Pursuant to Section 19e of Republic Act No. 9275, otherwise known as the *Philippine Clean Water Act of 2004*, which states that the Department of Environment and Natural Resources, as the lead agency, shall enforce, review and revise within twelve (12) months from the effectivity of this Act water quality guidelines after due consultation with the concerned stakeholder sectors; *Provided*, that the Department, in coordination with appropriate agencies shall review said guidelines every five (5) years or as need arises; and Section 19f states that the Department shall review and set effluent standards every (5) years from the effectivity of this Act or sooner as determined by the Department; and Sections 8 and 9 of the Department of Environment and Natural Resources Administrative Order (DAO 2016-08), otherwise known as the Water Quality Guidelines (WQG) and General Effluent Standards (GES) of 2016, which provides for the modification of WQG and GES and its periodic review, this Order is hereby issued.

Section 1. Basic Policy

It is the policy of the State to pursue a policy of economic growth in a manner consistent with the protection, preservation and revival of the quality of our fresh, brackish and marine waters.

Section 2. Objectives

This Order is issued to update the water quality guidelines for selected parameters based on the current classification of water bodies and on its beneficial use. In addition, the effluent standards for selected parameters are updated based on its perceived impact to the activities in the area and to the environment.

Section 3. Scope and Coverage

This Order covers the updating of WQG and/or GES for the following parameters:

- 3.1 Ammonia as NH₃-N
- 3.2 Boron
- 3.3 Copper as Dissolved Copper
- 3.4 Fecal Coliform
- 3.5 Phosphate as Phosphorus (Total, Reactive)
- 3.6 Sulfate

This also cover additional requirements on the use of GES for strong wastewater for BOD, requirements for modification of Significant Effluent Quality Parameter (SEQP), and amendment to Section 7.0 of DENR AO 2016-08.

Section 4. Updated WQG and GES for Selected Parameters

This section prescribes the updated WQG and/or GES for the aforementioned parameters.

4.1 Updated WQG and GES for Ammonia as NH₃-N

Table 1 presents the updated WQG and GES for Ammonia as NH₃-N for all water bodies.

Table 1. Updated WQG and GES for Ammonia as NH₃-N

Water Body Classification	Unit	WQG	GES
Class AA	mg/L	0.06	NDA
Class A	mg/L	0.06	2
Class B	mg/L	0.06	3
Class C	mg/L	0.06	4
Class D	mg/L	0.30	9
Class SA	mg/L	0.04	NDA
Class SB	mg/L	0.06	3
Class SC	mg/L	0.06	4
Class SD	mg/L	0.30	9

Note: NDA – No Discharge Allowed

4.2 Updated WQG and GES for Boron

Table 2 presents the updated WQG and GES for Boron for all water bodies.

Table 2. Updated WQG and GES for Boron

Water Body Classification	Unit	WQG	GES
Class AA	mg/L	0.75	NDA
Class A	mg/L	0.75	4
Class B	mg/L	0.75	4
Class C	mg/L	0.75	4
Class D	mg/L	3	12
Class SA	mg/L	0.75	NDA
Class SB	mg/L	0.75	4
Class SC	mg/L	5	25
Class SD	mg/L	20	100

Note: NDA – No Discharge Allowed

4.3 Updated WQG and GES for Copper

The previous parameter, Copper as Dissolved Copper, is updated to Total Copper.

Table 3 presents the updated WQG and GES for Copper (expressed as Total Copper) in all water bodies.

Table 3. Updated WQG and GES for Total Copper

Water Body Classification	Unit	WQG	GES
Class AA	mg/L	0.2	NDA
Class A	mg/L	0.2	1
Class B	mg/L	0.2	1
Class C	mg/L	0.2	1
Class D	mg/L	0.4	2
Class SA	mg/L	0.2	NDA

Water Body Classification	Unit	WQG	GES
Class SB	mg/L	0.2	1
Class SC	mg/L	0.2	1
Class SD	mg/L	0.4	2

Note: NDA – No Discharge Allowed

4.4 Updated WQG and GES for Fecal Coliform

Table 4 presents the updated WQG and GES for Fecal Coliform for all water bodies.

Table 4. Updated WQG and GES for Fecal Coliform

Water Body Classification	Unit	WQG	GES
Class AA	MPN/100 mL	20	NDA
Class A	MPN/100 mL	50	100
Class B	MPN/100 mL	100	200
Class C	MPN/100 mL	200	400
Class D	MPN/100 mL	400	800
Class SA	MPN/100 mL	20	NDA
Class SB	MPN/100 mL	100	200
Class SC	MPN/100 mL	200	400
Class SD	MPN/100 mL	400	800

Note: NDA – No Discharge Allowed

MPN/100mL – Most Probable Number/100 ml of sample

4.5 Updated WQG and GES for Phosphate as Phosphorus (Total, Reactive)

Table 5 presents the updated WQG and GES for Phosphate as Phosphorus (Total, Reactive) for all water bodies.

Table 5. Updated WQG and GES for Phosphate as Phosphorus (Total, Reactive)

Water Body Classification	Units	WQG	GES
Class AA	mg/L	0.025	NDA
Class A	mg/L	0.025	1
Class B	mg/L	0.025	1.5
Class C	mg/L	0.025	4
Class D	mg/L	0.05	10
Class SA	mg/L	0.1	NDA
Class SB	mg/L	0.2	2
Class SC	mg/L	0.2	4
Class SD	mg/L	0.4	10

Note: NDA – No Discharge Allowed

4.6 Updated WQG and GES for Sulfate

Table 6 presents the updated WQG and GES for Sulfate for all water bodies.

Table 6. Updated WQG and GES for Sulfate

Water Body Classification	Units	WQG	GES
Class AA	mg/L	250	NDA
Class A	mg/L	250	500
Class B	mg/L	250	500
Class C	mg/L	275	550
Class D	mg/L	500	1,000
Class SA	mg/L	-	-

Water Body Classification	Units	WQG	GES
Class SB	mg/L	-	-
Class SC	mg/L	-	-
Class SD	mg/L	-	-

Note: NDA – No Discharge Allowed

(-) – means no recommended values due to the natural occurrence in marine/brackish waters

4.7 GES for Strong Wastewater for BOD

The GES for strong wastewater particularly for BOD shall only apply once the establishment show proof that the influent data are within the prescribed influent values as indicated in Table 10 of DAO 2016-08 within the last twelve (12) months. Copy of the results of laboratory analyses from a DENR-recognized environmental laboratory shall be submitted to the EMB Central Office along with the letter of request.

This provision shall only apply to effluent being discharged to Classes C, D, SC, or SD water body.

Section 5. Requirements for Modification of Significant Effluent Quality Parameters (SEQP)

Any person or establishment, both natural and juridical, requesting for modification of SEQP shall submit to the EMB Central Office the methodology and subsequently, a technical report with justifications containing the following, among others:

- 5.1 Wastewater characterization
- 5.2 Monthly monitoring data for both influent and effluent covering a 1-year period;
- 5.3 Capital and operating costs of existing wastewater treatment plant;
- 5.4 Technology and designed treatment efficiency of existing wastewater treatment plant;
- 5.5 Wastewater sources for parameter of concern; and
- 5.6 Estimated additional expenses for compliance.

In cases where a particular significant parameter as indicated in table 8 of DAO 2016-08 is not present in an establishment's waste stream, such establishment may request to the DENR, through the EMB, the exclusion of such particular significant parameter in its succeeding monitoring period provided the following conditions are met:

- a) Concerned parameter is below the method detection level (MDL) in its influent and effluent for at least twelve (12) monitoring events, provided that the MDL is based on the EMB-approved Method of Analysis; and
- b) No change in technology and raw materials used in its operations or processes.

The request shall be acted upon within twenty (20) working days from receipt provided that all requirements have been satisfactorily complied with.

EMB may conduct validation to attest the modification request of the establishment.

Section 6. Amendment to Section 7.0 of DENR AO 2016-08

For the purpose of clarification and consistency, Section 7 of DENR AO 2016-08 shall be amended to read as:

“Discharges from any point source shall at all times meet the effluent standards set forth in **Table 9** to maintain the required water quality per water body classification.”

Section 7. Separability Clause


Any section or provision of this Order declared to be unconstitutional or invalid by a competent court, the other sections or provisions hereof shall remain to be in force.

Section 8. Repealing Clause

All rules, regulations, orders, and issuances, or parts thereof inconsistent with this Order are hereby updated, modified, or repealed accordingly.

Section 9. Effectivity

This Order shall take effect fifteen (15) days after its publication in a newspaper of general circulation and upon acknowledgment of receipt of a copy thereof by the Office of the National Administration Registrar (ONAR), UP Law Center.


ROY A. CIMATU
Secretary

