Republic of the Philippines
Benguet State University
2601 La Trinidad, Benguet
Office of the University President

BAGONG PILIPINAS

FILE
BENGUET STATE UNIVERSITY
RECORDS OFFICE AND ARCHIVES

July 1, 2025

BSU Records Office & Archives
No.: 0212
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BENGUET STATE UNIVERSITY
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No.
Date: JUL 01 2025
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BSU C.A.R.E.S

OFFICE ORDER
No. 0633 series 2025

TO : **ALL UNIVERSITY OFFICIALS AND EMPLOYEES**

SUBJECT : **DESIGNATION AS INTERIM OVERALL POLLUTION CONTROL OFFICER (PCO), CONCURRENTLY SERVING AS CAMPUS PCO FOCAL PERSON**

1. Effective July 1, 2025 to July 25, 2025, you are hereby designated as Interim Overall Pollution Control Officer (PCO), concurrently serving as the Campus PCO Focal Person, with the corresponding duties and responsibilities. This designation shall remain in effect unless sooner revoked or amended by this Office.

Designation	Name	Functions
Interim Overall Pollution Control Officer	[redacted] Assistant Professor IV	1. Ensures that all submissions to the Managing Head are timely and complete; 2. Takes on the administrative operations of the Pollution Control Office; 3. Heads the operationalization of the Pollution Control Office functions to all the BSU Campuses; 4. Aligns all University Policies and Environmental Programs to RA 6969 and ensures the proper implementation of all provisions in DAO 14-02 and DAO 13-22 with the Managing Head, PCO Buguias, PCO La Trinidad, and PCO Bokod; 5. Assists focal persons in the implementation of their duties and responsibilities; 6. Attends Technical Conferences together with the Managing Head whenever Notice(s) of Violation (NV) are issued to BSU; 7. Represents BSU in Projects, Programs, and Sectoral Committees that involve environmental protection and other sustainability programs initiated and undertaken by DENR-EMB (ex. WQMA, BLISTT Airshed, etc.). This ensures the continuity and sustainability of organizational history.
Concurrent PCO Focal Person for La Trinidad Campus		1. Together with the managing head, ensure compliance with the requirements of PD 1586. RA 6969, RA 9003, RA 9275, their respective implementing rules and regulations (IRRs), and other pertinent rules and regulations; 2. Identifies significant environmental aspects and impacts of the establishment's operational activities and recommend possible mitigating measures in the formulation/preparation and/or review of the Environment Management Plan and Contingency Plan; 3. Attends to all permitting and registration requirements of the establishment prior to the construction, installation or operation of pollution sources and control facilities.

2. In the best interest of public service and in order to sustain quality and excellence in the University, you shall perform your duties and responsibilities in the said designation with utmost sincerity, honesty, dedication, and commitment.

3. This designation shall form part of your workload. It shall be given the equivalent teaching load in accordance with the authorized BSU guidelines on workload and other related laws/policies.

4. Be guided accordingly.

University President

/hrmo

CF: Employee/OVPAA/ROA/COA/201 File

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Benguet State University
2601 La Trinidad, Benguet
Office of the University President

BAGONG PILIPINAS

FILE
BENGUET STATE UNIVERSITY
RECORDS OFFICE AND ARCHIVES

January 6, 2025

BSU Records Office & Archives
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No.:
Date: FEB 12 2025
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BENGUET STATE UNIVERSITY
RECORDS OFFICE AND ARCHIVES
RECEIVED
No.:
Date: FEB 12 2025
By:
BSU CARES

OFFICE ORDER
No. **0431**, series 2025

TO : **ALL UNIVERSITY OFFICIALS AND EMPLOYEES**

SUBJECT : **DESIGNATION AS MANAGING HEAD, OVERALL POLLUTION CONTROL OFFICER (PCO) AND CAMPUS PCO FOCAL PERSON**

1. Effective January 6, 2025 to June 30, 2025, the following are designated as Managing Head, Overall Pollution Control Officer and Campus Focal Person with the corresponding duties and responsibilities. This designation shall remain enforced unless sooner revoked or amended by this Office.

Designation	Name	Functions
OIC Managing Head concurrent as Director of the Planning Unit	[redacted] Attorney II	1. Responsible for submitting the necessary documents to the EMB Regional Office to seek accreditation for the appointed PCO: 2. Letter of appointment or designation. 3. Curriculum vitae with a recent ID picture of the PCO. 4. Notarized Affidavit of Joint Undertaking between the PCO and the Managing Head. 5. Proof of the PCO's qualifications, such as the Basic PCO Training Certificate. 6. Ensures compliance with environmental laws, including: 7. Presidential Decree No. 1586 (Environmental Impact Statement System). 8. Republic Act No. 6969 (Toxic Substances and Hazardous and Nuclear Wastes Control Act). 9. Republic Act No. 8749 (Philippine Clean Air Act). 10. Republic Act No. 9003 (Ecological Solid Waste Management Act). 11. Republic Act No. 9275 (Philippine Clean Water Act). 12. Ensures the proper operation and maintenance of environmental management facilities or systems within the establishment; 13. Performs related functions as assigned by the University President.
Overall Pollution Control Officer	[redacted] Instructor III	1. Ensures that all submissions to the Managing Head are timely and complete; 2. Takes on the administrative operations of the Pollution Control Office; 3. Heads the operationalization of the Pollution Control Office functions to all the BSU Campuses; 4. Aligns all University Policies and Environmental Programs to RA 6969 and ensures the proper implementation of all provisions in DAO 14-02 and DAO 13-22 with the Managing Head, PCO Buguias, PCO La Trinidad, and PCO Bokod; 5. Assists focal persons in the implementation of their

		duties and responsibilities; 6. Attends Technical Conferences together with the Managing Head whenever Notice(s) of Violation (NV) are issued to BSU; 7. Represents BSU in Projects, Programs, and Sectoral Committees that involve environmental protection and other sustainability programs initiated and undertaken by DENR-EMB (ex. WQMA, BLISTT Airshed, etc.). This ensures the continuity and sustainability of organizational history.
PCO Focal Person for La Trinidad Campus	**ELIZABETH TELCAGAN DOM-OGEN** Assistant Professor IV	1. Together with the managing head, ensure compliance with the requirements of PD 1586. RA 6969, RA 9003, RA 9275, their respective implementing rules and regulations (IRRs), and other pertinent rules and regulations; 2. Identifies significant environmental aspects and impacts of the establishment's operational activities and recommend possible mitigating measures in the formulation/preparation and/or review of the Environment Management Plan and Contingency Plan; 3. Attends to all permitting and registration requirements of the establishment prior to the construction, installation or operation of pollution sources and control facilities.
PCO Focal Person for Bokod Campus	**RACHELLE B. KIONG** Nurse II	
PCO Focal Person for Buguias Campus	**RIO ANN B. ARCEO** Instructor I	

2. In the best interest of public service and in order to sustain quality and excellence in the University, you shall perform your duties and responsibilities in the said designation with utmost sincerity, honesty, dedication, and commitment.

3. This designation shall form part of your workload. It shall be given the equivalent teaching load in accordance with the authorized BSU guidelines on workload and other related laws/policies.

4. Be guided accordingly.

University President

CF: Employee/OVPAA/ROA/COA/201 File

/hrmo

Republic of the Philippines
BENGUET STATE UNIVERSITY
2601 La Trinidad, Benguet

BAGONG PILIPINAS

Office of the University President

August 18, 2025

OFFICE ORDER
No. 0735 , series 2025

TO : [redacted]
Assistant Professor II

SUBJECT : **DESIGNATION AS THE POLLUTION CONTROL OFFICER (PCO) FOCAL PERSON AND RESEARCH COORDINATOR OF THE BOKOD CAMPUS**

1. You are hereby designated as the Pollution Control Officer (PCO) Focal Person and Research Coordinator of the Bokod Campus, effective August 14, 2025 to December 31, 2026. This designation shall remain enforced unless sooner revoked or amended by this office.

2. As Pollution Control Officer (PCO) Focal Person and Research Coordinator, the following are your duties and responsibilities:

   Pollution Control Officer (PCO) Focal Person
   a) Ensure compliance with the requirements of PD 1586. RA 6969, RA 9003, RA 9275, their respective implementing rules and regulations (IRRs), and other pertinent rules and regulations;
   b) Identifies significant environmental aspects and impacts of the establishment's operational activities and recommend possible mitigating measures in the formulation/preparation and/or review of the Environment Management Plan and Contingency Plan
   c) Attends to all permitting and registration requirements of the establishment prior to the construction, installation or operation of pollution sources and control facilities.

   Research Coordinator
   a) Coordinate the packaging, registration, and implementation of Research activities of the college;
   b) Submit required reports of Research activities to the Dean, copy furnished the Office of Research Services (ORS);
   c) Provide support in the University's Gender and Development PPA's; and
   d) Perform other duties and responsibilities that may be assigned by proper authority.

3. In the best interest of public service and in order to sustain quality and excellence in the University, you shall perform your duties and responsibilities in the said designation with utmost sincerity, honesty, dedication, and commitment.

4. This designation shall remain enforced unless sooner revoked or amended by this Office. It shall be given the equivalent teaching load in accordance with the authorized BSU guidelines on workload and other related laws/policies; and

5. Be guided accordingly.

[redacted]N
University President

Conforme: _____
[redacted]

Copy furnished: Employee/COA/ROA/201 File
HRMO2025 AUG 19 2025

Email: president@bsu.edu.ph
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Management System ISO 9001:2015
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BAGONG PILIPINAS

Office of the University President

JULY 1, 2025

OFFICE ORDER
No. 0635 series 2025

TO : H[redacted]
: Assistant Professor I

SUBJECT : DESIGNATION AS CAMPUS POLLUTION CONTROL OFFICER OF BSU BOKOD CAMPUS

1. You are hereby designated as CAMPUS POLLUTION CONTROL OFFICER of BSU BOKOD CAMPUS effective August 1, 2025, until December 31, 2026. This designation shall take effect immediately unless sooner revoked or amended by this office.
2. As SECTION HEAD, the following are your duties and responsibilities:
   a. Develop and implement research programs on biodiversity conservation, species preservation, ecosystem management, and other related proposals;
   b. Oversee the center's daily operations, ensuring efficiency in research, conservation efforts, and educational activities;
   c. Supervise staff, researchers, and technical personnel to ensure smooth coordination of biodiversity projects and initiatives;
   d. Manage budgets, funding, and resources to support biodiversity research, conservation programs, and outreach activities;
   e. Establish and maintain partnerships with government agencies, NGOs, academic institutions, and local communities to strengthen biodiversity conservation efforts;
   f. Ensure compliance with environmental laws, research ethics, and institutional policies in all biodiversity-related activities; and
   g. Monitor, evaluate, and report on biodiversity projects while promoting public awareness through education, advocacy, and outreach programs.
3. In the best interest of public service and in order to sustain quality and excellence in the University, you shall perform your duties and responsibilities in the said designation with utmost sincerity, honesty, dedication, and commitment.
4. This shall form part of your workload and be given the equivalent teaching load in accordance with the guidelines of the workload policy.
5. Please be guided accordingly.

[redacted]JAN
University President

Conforme: _____
H[redacted]

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Republic of the Philippines
Benguet State University
2601 La Trinidad, Benguet
Office of the University President

BAGONG PILIPINAS

FILE
BENGUET STATE UNIVERSITY
RECORDS OFFICE AND ARCHIVES

July 14, 2025

BSU Records Office & Archives
RELEASED
No.:
Date: JUL 16 2025
By:

BENGUET STATE UNIVERSITY
RECORDS OFFICE AND ARCHIVES
RECEIVED
No.
Date: JUL 16 2025
By:
BSU C.A.R.E.S

OFFICE ORDER
No. 0667 series 2025

TO : **ALL UNIVERSITY OFFICIALS AND EMPLOYEES**

SUBJECT : **DESIGNATION AS OVERALL POLLUTION CONTROL OFFICER (PCO) CONCURRENT WITH CAMPUS PCO FOCAL PERSON**

1. You are hereby designated as the **Overall Pollution Control Officer, concurrent with Campus PCO Focal Person**, with the corresponding duties and responsibilities. This designation shall be **effective from July 26, 2025, to December 31, 2025**, and shall remain in force unless sooner revoked or amended by this Office.

Designation	Name	Functions
Overall Pollution Control Officer	[redacted]	1. Ensures that all submissions to the Managing Head are timely and complete; 2. Takes on the administrative operations of the Pollution Control Office; 3. Heads the operationalization of the Pollution Control Office functions to all the BSU Campuses; 4. Aligns all University Policies and Environmental Programs to RA 6969 and ensures the proper implementation of all provisions in DAO 14-02 and DAO 13-22 with the Managing Head, PCO Buguias, PCO La Trinidad, and PCO Bokod; 5. Assists focal persons in the implementation of their duties and responsibilities; 6. Attends Technical Conferences together with the Managing Head whenever Notice(s) of Violation (NV) are issued to BSU; 7. Represents BSU in Projects, Programs, and Sectoral Committees that involve environmental protection and other sustainability programs initiated and undertaken by DENR-EMB (ex. WQMA, BLISTT Airshed, etc.). This ensures the continuity and sustainability of organizational history.
La Trinidad Campus Pollution Control Officer (PCO) Focal Person		1. Together with the managing head, ensure compliance with the requirements of PD 1586. RA 6969, RA 9003, RA 9275, their respective implementing rules and regulations (IRRs), and other pertinent rules and regulations; 2. Identifies significant environmental aspects and impacts of the establishment's operational activities and recommend possible mitigating measures in the formulation/preparation and/or review of the Environment Management Plan and Contingency Plan;

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WURI The WORLD UNIVERSITY RANKINGS for INNOVATION

		8. Attends to all permitting and registration requirements of the establishment prior to the construction, installation or operation of pollution sources and control facilities.

2. In the best interest of public service and in order to sustain quality and excellence in the University, you shall perform your duties and responsibilities in the said designation with utmost sincerity, honesty, dedication, and commitment.

3. This designation shall form part of your workload. It shall be given the equivalent teaching load in accordance with the authorized BSU guidelines on workload and other related laws/policies.

4. Be guided accordingly.

[redacted]
University President

CF: Employee/OVPAA/ROA/COA/201 File

07/16/25

[redacted]

Republic of the Philippines
Benguet State University
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Office of the University President

FILE
BENGUET STATE UNIVERSITY
RECORDS OFFICE AND ARCHIVES

January 31, 2023

OFFICE ORDER
No. **0106**, series 2023

TO : **ALL UNIVERSITY OFFICIALS AND EMPLOYEES**

: **A, Vice President for Administration and Finance**

G, Instructor III

EN, Assistant Professor IV

SUBJECT : **DESIGNATION AS MANAGING HEAD, OVERALL POLLUTION CONTROL OFFICER (PCO) AND LA TRINIDAD PCO FOCAL PERSON**

1. Effective January 3, 2023 to November 25, 2024, you are designated for the following offices and functions. This designation shall remain enforced unless sooner revoked or amended by this Office.

OIC Managing Head concurrent as Vice President for Admin and Finance	**A CPA**
Overall Pollution Control Officer-La Trinidad Campus	
PCO Focal Person	**EL GEN**

2. The overall pollution control officer is expected to perform the functions of a PCO as government regulations. He shall assist the Managing Head with assistance of the PCO focal person for La Trinidad Campus, and pollution control officers for Bokod and Buguias Campuses. Incidentally, it is expected that the PCO does the following:
   a. Compile or codify government regulations on the functions and requirements for the PCO, in addition to the existing records to be turned-over by the outgoing PCO;
   b. Identify pollution control officer for the Bokod and Buguias Campuses;
   c. Delineate the functions of the Managing Head and the PCO for the Bokod and Buguias Campuses;
   d. Prepare such plans and programs needed by the PCO; and
   e. Such other functions in support to the primary functions of the PCO.

3. In the best interest of public service and in order to sustain quality and excellence in the University, you shall perform your duties and responsibilities in the said designation with utmost sincerity, honesty, dedication, and commitment.

4. This designation shall form part of your workload. It shall be given the equivalent teaching load in accordance with the authorized BSU guidelines on workload and other related laws/policies.

5. Be guided accordingly.

University President

CF: Employee/OVPAA/ROA/COA/201 File

/hrmo-rsp

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Republic of the Philippines

Benguet State University

2601 La Trinidad, Benguet
www.bsu.edu.ph

Office of the University President

OFFICE ORDER No. 0121 s. 2021
January 29, 2021

TO : **ALL UNIVERSITY EMPLOYEES**
: [redacted]
Faculty Member, College of Arts and Sciences
Director, Office of Quality Assurance and Assessment (OQAA)
: J[redacted]
Faculty Member, College of Arts and Sciences
: [redacted]
Faculty Member, College of Arts and Sciences

SUBJECT : **DESIGNATION AS MANAGING HEAD, OVERALL POLLUTION CONTROL OFFICER (PCO) AND LA TRINIDAD PCO FOCAL PERSON**

Effective January 29, 2021 until December 31, 2022, you are designated for the following offices and functions:

MANAGING HEAD CONCURRENT AS DIRECTOR OF OQAA	: A[redacted]
OVERALL POLLUTION CONTROL OFFICER	: J[redacted]
LA TRINIDAD CAMPUS PCO FOCAL PERSON	: [redacted]

The Overall Pollution Control Officer is expected to perform the functions of a PCO as per government regulations. He shall assist the Managing Head with assistance of the PCO focal person for La Trinidad Campus, and pollution control officers for Bokod and Buguias Campuses. Incidentally, it is expected that the PCO does the following:

1. Compile or codify government regulations on the functions and requirements for the PCO, in addition to the existing records to be turned-over by the outgoing PCO;
2. Identify pollution control officer for the Bokod and Buguias Campuses;
3. Delineate the functions of the Managing Head and the PCO for the Bokod and Buguias Campuses;
4. Prepare such plans and programs needed by the PCO; and
5. Such other functions in support to the primary functions of the PCO.

This amends, modifies, sets-aside any earlier issuances contrary to this memo. This designation shall be given the corresponding equivalent teaching load.

For your guidance and information.

[redacted]
University President
Cc: 201 File

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City
Tel. Nos.: (632) 929-66-26 to 29
Website: http://www.denr.gov.ph / E-mail: web@denrgov.ph

FEB 0 3 2014

DENR Administrative Order
No. 2014-____02_____

SUBJECT: Revised Guidelines for Pollution Control Officer Accreditation

Pursuant to Paragraph 3 of Letter of Instructions (LOI) 588 (Designation of a Pollution Control Officer by All Entities Discharging or Emitting Substances) dated 19 August 1977 and Executive Order 192 (Providing the Reorganization of the Department of Environment, Energy and Natural Resources; Renaming it as the Department of Environment and Natural Resources) dated 10 June 1987, Presidential Decree (PD) 1586 (Establishing an Environmental Impact Statement System Including Other Environmental Management Related Measures and for Other Purposes), Republic Act (RA) 6969 (Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990), RA 8749 (Philippine Clean Air Act of 1999), RA 9003 (Ecological Solid Waste Management Act of 2000), and RA 9275 (Philippine Clean Water Act of 2004); and their respective Implementing Rules and Regulations (IRR), the Guidelines for Pollution Control Officer (PCO) Accreditation are hereby revised.

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.

Sec. 2. Objectives. This Administrative Order shall have the following objectives:

a. To effectively enforce RA 9275 by establishing linkages among the (1) Department of Environment and Natural Resources, (2) industrial establishments which are potential and actual sources of pollution, and (3) local government agencies; and,
b. To carry out the national policy of maintaining a reasonable quality of the environment.

Sec. 3. Scope and Coverage. This Order shall cover the accreditation of PCOs of establishments that discharge solid, liquid, or gaseous wastes to the environment or whose activities, products, or services are actual and/or potential sources of land, water, or air pollution. This Order shall likewise apply to local government units (LGUs), development authorities, government-owned and controlled corporations, and other public establishments.

Ambulant vendors and stall owners as defined under RA 6977 ("An Act to Promote, Develop, and Assist Small and Medium Enterprises Through the Creation of a Small and Medium Enterprise Development (SMED) Council, and the Rationalization of Government Assistance Programs and Agencies Concerned with the Development") as amended by RA 8289 (An Act to Strengthen the Promotion and Development of, and Assistance to Small and Medium Scale Enterprises, amending RA 6977, otherwise known as the "Magna Carta for Small Enterprises), and materials recovery facilities (MRFs) operated by barangays that do not handle hazardous wastes are exempt from the coverage of this Order.

Sec. 4. Definition of Terms

For the purposes of this Order, the following terms shall have the following meanings:

Department of Environment and Natural Resources
EMB-CENTRAL OFFICE
OFFICE OF THE ASSISTANT DIRECTOR
RECEIVED BY: Rizza
DATE: 2/13/2014
TIME: 10:55 am

a. **Ambulant Vendors** - either itinerant or semi-static. Itinerant vendors are those who go around shouting their ware while semi-static vendors are those who are in semi-fixed positions but may move about as the situation necessitates.

b. **Department** - Department of Environment and Natural Resources.

c. **DENR Administrative Order 1990-35** - Revised Effluent Regulations of 1990.

d. **DENR Administrative Order 2000-03** - Interim Implementing Rules and Regulations of RA 8749.

e. **DENR Administrative Order 2004-36** - the Procedural Manual Title III of DENR Administrative Order 1992-29 "Hazardous Waste Management."

f. **Economic Activity** - the activity of the establishment as classified under the Philippine Standard Industrial Classification. The main activity of the establishment is the establishment's principal source of income.

g. **Environmental Aspect** - the element of an organization's activities or products or services that can interact with the environment (ISO 14001 definition).

h. **Environmental Impact** - any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects (ISO 14001 definition).

i. **Environmental Incident** - an incident that has caused, or has the potential for causing pollution to the environment.

j. **Environmental Management** - the entire system which includes, but is not limited to, conservation, regulation, and minimization of pollution; waste management; environmental law and policy; environmental education and information; study and mitigation of the environmental impacts of human activity; and environmental research.

k. **Environmental Management System** - part of an organization's management system used to develop and implement its environmental policy and manage its environmental aspects (ISO 14001 definition).

l. **Establishment** - a recognizable economic unit under a single ownership or control, i.e., under a single legal entity, which engages in one or predominantly one kind of economic activity at a single physical location. This includes industrial, commercial, and institutional establishments.

m. **Highly Urbanized Cities** - cities with a minimum population of two hundred thousand (200,000) inhabitants as certified by the National Statistics Office, and with the latest annual income of at least Fifty Million Pesos (Php 50,000,000.00) based on 1991 constant prices, as certified by the city treasurer.

n. **Installation** - a system of machinery or other apparatus set up for use.

o. **Letter of Instruction 588** - the Designation of a PCO by All Entities Discharging or Emitting Pollutants.

p. **Managing Head** - the highest executive officer of the establishment (i.e. President, General Manager, Factory/Plant Manager, Managing Director, Managing Partner, Chief Executive Officer, or Local Chief Executive).

q. **Memorandum Circular (MC) 2007-003** - the Policy on Compliance and Permitting for Industrial Facilities Relating to Air Quality.

r. **Organization** - a group or association of individuals who are joined together either formally or legally. This includes a corporation, government, partnership and any type of civil or political association of people.

s. **Pollution Control Facility** - any structure, including, but not limited to, contrivance, facility, system, device or mechanism which can adequately control and/or abate liquid or gaseous wastes or sound pollution within allowed quality of standards of the Department.

t. **Pollution Control Officer** - a technical person competent in pollution control and environmental management, performing the duties and responsibilities in a particular establishment and officially accredited by the Environmental Management Bureau (EMB) Regional Office to perform such responsibilities.

u. **Pollution Source** - a process, equipment, or facility installation that discharges solid, liquid, or gaseous wastes to the environment.

v. **Regional Director** - the Director of the EMB Regional Office.

w. **Secretary** - the Secretary of the Department of Environment and Natural Resources.

x. **Technical Conference** - a meeting between the EMB Regional Office and the respondent with or without the presence of a complaint for the purpose of discussing/clarifying particularly environmental concerns, pollution prevention commitment and appropriate technical solutions, and/or remedial measures for the prevention, abatement, or mitigation of pollution.

Sec. 5. PCO Accreditation Based on Categorization of Establishment. PCOs shall be accredited based on the categorization of establishments. This categorization shall define the needed qualifications of PCO as prescribed in Section 6.0 of this Order. Establishments shall be categorized as Category A or Category B based on the criteria indicated in Table 1.

Table 1. Criteria for Categorization of Establishments

Criteria	Category A	Category B
Chemical Usage, Storage, and/or Handling	Using, storing, and/or handling chemicals which are not listed in Annex 1 of this Order	Using, storing, and/or handling chemicals which are listed in Annex 1 of this Order regardless of quantity
Hazardous Waste Generated	Small quantity generator as defined in Annex 2 of this Order	• Large quantity generator as defined in Annex 2 of this Order; • Accredited Transporter; or • Accredited Treatment, Storage, and Disposal (TSD) facility
Air Emissions	Boilers rated less than 50 HP, diesel generators at less than 300 kW, or other sources that have the potential to emit less than 10 tons per year of an air pollutant regulated under RA 8749, or establishments not required to undergo stack sampling	• Small, medium, large-sized, or environmentally significant existing source as defined in EMB MC 2007-003; or • Establishments required to undergo stack sampling
Solid Waste	Generates more than 30 kg/day of	• Centralized MRF; or

Criteria	Category A	Category B
Generated	aggregate solid wastes	• Solid waste treatment or processing facilities; or • Sanitary landfill or with sanitary landfill
Wastewater Discharged	Less than 30 m^3/day and with effluent quality parameters not listed in Annex 3 of this Order	• Equal to or greater than 30 m^3/day; or • With effluent quality parameters listed in Annex 3 of this Order; or • Classified as Strong Wastewater (with influent BOD $\geq$ 3,000 mg/L); or • Transporter or treater of wastewater, sewage and/or septage
Sludge Generated	n/a	Transporter or treater of sludge

Sec. 6. Qualifications Requirements for PCOs

1) Basic Qualifications:
   a. Filipino citizen, of legal age, with good moral character, and mentally and physically healthy;
   b. Full-time employee of the establishment where he/she is being appointed/ designated as PCO;
   c. Has completed the Basic PCO Training Course by an EMB-recognized training organization/institution within the last three (3) years.

2) Minimum Competency Requirement. Any of the following competency requirements shall be considered:

   a. For Category A establishments
      - Graduate of any related technical course
      - Had reached third year in tertiary level education
      - Had been with the establishment for at least three (3) years in a supervisory position or in a responsible position or equivalent experience.

   b. For Category B establishments
      - Licensed engineers/chemists with at least two (2) years relevant experience in environmental management
      - Professionals in the field of engineering or physical and natural sciences with at least three (3) years relevant experience in environmental management
      - Other professionals of appropriate discipline with at least five (5) years relevant experience in environmental management.

Sec. 7. Appointment/Designation of PCOs. The Managing Heads of establishments, LGUs and other government institutions that discharge solid, liquid, or gaseous wastes to the environment or whose activities, products, or services are actual and/or potential sources of land, water, or air pollution shall appoint/designate and seek accreditation for their PCO. Provided, that no PCO shall serve as such for more than one establishment.

A store manager, retail station manager, or building administrator of, but not limited to, fast-food stores, gasoline stations, and condominiums may be designated as PCO provided he/she possesses the minimum competency requirements for Category A Establishments in accordance with Section 6.0 of this Order.

Owner/manager regardless of professional qualification may be designated as PCO for Category A Establishments provided he/she possesses the Basic Requirements in accordance to Section 6.0 of this Order.

7.1 PCO for Companies with Multiple Installations. For companies with multiple installations (e.g. telecommunication companies, transmission substation, distribution substation, water pumping station, sewage/septage treatment facilities, etc.) at different locations or regions, a minimum of one PCO per region shall be required by the Regional Director. For regions with Highly Urbanized Cities (HUC), an additional one PCO per HUC shall be required by the Regional Director.

For each installation with wastewater discharge greater than 30 m^3/day (DENR AO 35, series of 1990) or emission that requires testing per EMB MC 2007-003, a separate PCO shall be required by the Regional Director.

7.2 PCO for LGUs and Other Government Institutions. Government institutions and LGUs that operate establishments but not limited to slaughterhouses, public markets, and hospitals and whose activities necessitate the appointment/designation of a PCO under Section 7.0 of this Order shall appoint/designate a PCO.

Sec. 8. Accreditation of PCOs. The Managing Heads of establishments, LGUs and other government institutions shall apply for the accreditation of their appointed/designated PCO at the concerned EMB Regional Office within fifteen (15) calendar days from the date of appointment/designation. The accreditation shall be based on the qualifications set forth in Section 5.0 of this Order and shall observe the following:

1) The Managing Head, or his/her duly authorized representative, shall submit to the concerned EMB Regional Office the following requirements for the accreditation of his/her PCO and pay the processing fee in the amount of Php500.00 to the concerned EMB Regional Office:

   - Letter of appointment/designation as PCO of the establishment
   - Curriculum vitae with ID Picture of the appointed/designated PCO;
   - Notarized Affidavit of Joint Undertaking of the PCO and the Managing Head;
   - Proof of the appointee's qualification such as Certificate of Training of Basic PCO Training; and
   - For Category B Establishments, include the valid Professional Regulation Commission license, if applicable.

   For the Managing Head of establishments, eight (8) hours training on environmental management covering the basic environmental laws, rules and regulations and the duties and responsibilities of the PCO as provided in Section 10.0 of this Order.

2) The Regional Director shall act on the application for accreditation of the appointed/ designated PCO within fifteen (15) calendar days from receipt of the application.

   - For approved applications, the RD shall issue the "Certificate of Accreditation" containing, among others, the responsibilities and accountabilities of the PCO and the Managing Head of establishments.

   - However, for disapproved applications, the RD will officially inform the establishment of the grounds for disapproval. Within thirty (30) calendar days from the date of disapproval of the application for accreditation, the Managing Head of establishments shall submit the required deficiencies or appoint/designate another PCO.

3) The EMB Regional Offices shall prepare a database of its accredited PCOs and shall furnish the EMB Central Office for consolidation and documentation.

Sec. 9. New PCO in Case of Resignation or Termination. In case of resignation or termination of the services of the PCO, the Managing Head shall appoint/designate a new PCO. He/she shall inform, in writing, the concerned EMB Regional Office within fifteen (15) calendar days and seek accreditation for the new PCO within thirty (30) calendar days from the date of resignation or termination.

The Managing Head shall immediately assume the responsibilities as interim PCO until such time that a new PCO shall have been accredited. In case the Managing Head of the establishment is of foreign nationality, the next highest ranking Filipino Officer shall assume the responsibilities of the PCO.

The accreditation of a PCO who has resigned or been terminated shall be considered automatically revoked upon his/her resignation or termination. A new accreditation shall be secured from the concerned EMB Regional Office if the PCO transfers and assumes the PCO position in another establishment.

Sec. 10. Duties and Responsibilities of Accredited PCOs. The accredited PCO shall perform the following duties and responsibilities:

1) Together with the Managing Head, ensure compliance with the requirements of PD 1586, RA 6969, RA 8749, RA 9003, RA 9275, their respective implementing rules and regulations (IRRs), and other pertinent rules and regulations;

2) Identify significant environmental aspects and impacts of the establishment's operational activities and recommend possible mitigating measures in the formulation/preparation and/or review of the Environmental Management Plan and Contingency Plan;

3) Attend to all permitting and registration requirements of the establishment prior to the construction, installation, or operation of pollution sources and control facilities;

4) Ensure the proper performance, operation, and maintenance of environmental management facilities or systems of the establishment such as the following:

   - Wastewater treatment facilities;
   - Air pollution control devices referred to in DAO 2000-03;
   - Hazardous waste management storage areas (permanent or temporary);
   - Solid waste segregation/management facilities (i.e. MRFs, sanitary landfills, composting facilities, etc.); and
   - Environmental monitoring devices such as the Continuous Emission Monitoring Systems, Air Monitoring Stations, effluent flow metering/measuring devices, groundwater monitoring wells, and other environmental monitoring devices.

5) Ensure that the hazardous wastes disposed offsite are covered by a Permit to Transport; each transport is covered by a hazardous waste manifest duly signed by the transporter and TSD facility; and with corresponding Certificate of Treatment (COT) duly signed by the TSD facility. Copies of the signed hazardous waste manifest and COT shall be submitted to the concerned EMB Regional Office in accordance with DENR Adm. Or. No. 2004-36;

6) Ensure that transport vehicles are properly operated and maintained (applicable only for hazardous wastes transporter);

7) Ensure that hazardous wastes Treatment Storage and Disposal (TSD) facilities are properly operated and maintained (applicable only for hazardous wastes TSD facility);

8) Monitor compliance to the requirements specified in the Environmental Compliance Certificate and the commitments stipulated in the Environmental Management and Monitoring Plans or Environmental Performance Report and Management Plans, and report the same in the Compliance Monitoring Report (CMR);

9) Monitor activities pertaining to the installation or construction of pollution source and control facilities to ensure compliance with the National Emission Standards for Source Specific Air Pollutants and National Ambient Air Quality Standards and report monitoring results to DENR as part of the Self-Monitoring Report (SMR);

10) Monitor activities pertaining to the operation and maintenance of pollution control facilities to ensure compliance with the Effluent Standards and report monitoring results to DENR as part of the SMR;

11) Monitor the use of chemicals, especially those listed under the Priority Chemicals List (PCL) and those with Chemical Control Orders (CCO) and the generation of solid and hazardous wastes. Monitoring data shall be submitted as part of the SMR and the PCL Compliance Certificate;

12) Monitor the importation or distribution of chemicals, especially those listed under the PCL and those with CCO and the generation of solid and hazardous wastes. Monitoring data shall be submitted as part of the SMR and the PCL Compliance Certificate (applicable only for importers or distributors of chemicals);

13) Promptly submit CMRs and SMRs, duly accomplished and signed by the PCOs, approved and certified correct by the Managing Head, and notarized;

14) Report in writing within twenty-four (24) hours from the occurrence of any of the following environmental incident to the concerned EMB Regional Office, as the case may be:

- Breakdown of any pollution source and/or control facility or monitoring instruments; or
- Releases (e.g. leaks, spills, etc.) of chemicals or hazardous wastes (listed in Annex 1 of this Order as well as the Priority List of Hazardous Substances as published by the Agency for Toxic Substances and Disease Registry of the Department of Health & Human Services of the United States of America) to environmental media.

15) Report in writing within twenty-four (24) hours from securing of the results of laboratory analysis or from online monitoring instruments any exceedance to effluent and/or emission standards;

The Report covering Items 14 and 15 above shall include the following:

- Date/time of the incident;
- Cause(s) of the incident; and
- Description of the incident detailing the following:

  - Estimated amount of chemicals or hazardous wastes, emissions, and/or effluents released to the receiving environment; and
  - Interim/contingency measures to mitigate any potential negative impacts.

The Managing Head shall sign the Report prepared by the PCO. Annex 4 shows the Environmental Incident Report format.

16) Submit to the Pollution Adjudication Board a copy of the SMR duly received by the respective EMB Regional Office (applicable only for establishments with pending case);

17) Attend, as duly authorized representative of the establishment, technical conferences, hearings, and meetings especially on matters pertaining to pollution cases of the establishment where he/she is employed;

18) As a liaison officer to EMB, keep himself/herself abreast with the requirements of the Department;

19) Coordinate regulatory programs and activities with the city/provincial/municipal governments (if applicable);

20) Initiate and intensify environmental management activities including awareness campaign within their organization; and

21) Participate in multi-partite monitoring team activities and meetings, where applicable.

The PCO and the Managing Head shall be held jointly and severally liable for any violation of PD 1586, RA 6969, RA 8749, RA 9003, RA 9275, their respective IRRs, and other pertinent rules and regulations, committed by the establishment.

Sec. 11. Renewal of PCO Accreditation. The PCO accreditation shall be renewed every three (3) years, provided that he/she has completed at least forty (40) hours of cumulative relevant PCO training as participant or twenty (20) hours as a trainer/subject matter expert within the three-year period and upon payment of the renewal fee of Php500.00.

Sec. 12. Reporting. All accredited PCOs shall submit SMR to the EMB Regional Offices on a quarterly basis.

ISO 14001 Certified companies may opt to apply for a semi-annual report submission of SMRs, subject to the approval of the EMB Central Office. Further, establishments may avail of the incentives given under the Industrial EcoWatch Program and the Philippine Environmental Partnership Program as regards to reportorial requirements.

For establishments with interim PCO pursuant to Section 9.0 of this Order, the Managing Head shall submit the required reports under this section.

Sec. 13. Training for PCOs and Requirements for Training Organizations/Institutions. Only EMB-recognized training organizations/institutions shall provide trainings for PCOs. As part of the recognition process, these training organizations/institutions must meet the minimum requirements provided in Annex 5 of this Order. A fee of PhP1,000.00 per application shall be charged by EMB Central Office for the processing of the application for recognition.

Recognized training organizations/institutions shall be required to submit an Annual Accomplishment Report to EMB every January 15. Their recognition shall be valid for one (1) year and shall be renewed upon submission of the requirements provided in Annex 5 of this Order. On the other hand, recognition shall be suspended or cancelled based on the grounds provided in Annex 5 of this Order.

Sec. 14. Revocation of PCO Accreditation. The following shall be considered as gross violations and are grounds for revocation of PCO accreditation:

a. Submission of false documents and/or reports; or
b. Misrepresentation of facts; or
c. Has received at least three (3) notices of nonperformance from EMB due to failure to perform any of the functions as indicated in Section 8.0 of this Order; or
d. Willful and deliberate discharge of untreated emissions/effluents and hazardous and toxic substances/wastes to the environment.

The commission of any of these violations shall, upon due process, result in the revocation of the accreditation of the PCO and the permanent disqualification of the concerned person from being accredited as PCO of any establishment. Upon discovery of the existence of any of the grounds for revocation, the Regional Director shall notify the Managing Head of the reason(s) for revocation.

The Managing Head shall submit, in writing, action plan to rectify the revocation within seventy-two (72) hours.

In the event that the accreditation of the PCO is revoked, the establishment shall immediately appoint/designate a new PCO, submit its name to the concerned EMB Regional Office and seek accreditation within fifteen (15) calendar days from receipt of the Revocation Order.

Sec. 15. Transitory Provision. Within one (1) year from the effectivity of this Order, all establishments are required to reapply for the accreditation of their PCOs in accordance with Section 11.0 hereof.

Sec. 16. Repealing Clause. DENR Administrative Order No. 26, series of 1992 and all other orders and issuances, rules and regulations, or parts thereof inconsistent with this order are hereby amended, modified or repealed accordingly.

Sec. 17. 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 hereof by the Office of the National Administrative Register.

RAMON J. P. PAJE
Secretary

Recommending Approval:

ATTY. JUAN MIGUEL T. CUNA
Director
Environmental Management Bureau

Publication: Malaya
February 7, 2014

Acknowledgement: ONAR, U.P. Law Center
February 10, 2014

Annex 1: Priority Chemical List

PCL No.	CAS No.	PICCS NAME	CAS/Index Name
1	000108-90-7	1, 4- CHLOROBENZENE	Benzene, chloro-
2	000106-93-4	1,2- DIBROMOETHANE	Ethane, 1,2-dibromo
3	000095-50-1	0-DICHLOROBENZENE	Benzene, 1,2-dichloro
4	000106-46-7	1,4- DICHLOROBENZENE	Benzene, 1,4-dichloro
5	000107-06-2	1,2 DICHLOROETHANE	Ethane, 1,2-dichloro
6	000122-66-7	1,2 DIPHENYLHYDRAZINE	Hydrazobenzene
7	000108-46-3	3-HYDROXYPHENOL	1,3-Benzenediol
8	007647-18-9	ANTIMONY PENTACHLORIDE	Antimony chloride
9	007440-38-2	ARSENIC COMPOUNDS	Arsenic
10	001332-21-4	ASBESTOS	Asbestos
11	000071-43-2	BENZENE	Benzene
12	007440-41-7	BERYLLIUM COMPOUNDS	Beryllium
13	007440-43-9	CADMIUM COMPOUNDS	Cadmium
14	000056-23-5	CARBON TETRACHLORIDE	
15	General Name	CHLORINATED ETHERS	
16	General Name	CHLOROFLUORO CARBONS	
17	000067-66-3	CHLOROFORM	Trichloromethane
18	000076-06-2	CHLOROPICRIN	Methane, trichloronitro
19	018540-29-9	CHROMIUM COMPOUNDS	Chromium
20	000057-12-5	CYANIDE COMPOUNDS	Cyanide
21	000064-67-5	DIETHYL SULFATE	Sulfuric acid, diethyl ester
22	000106-93-4	ETHYLENE DIBROMIDE	1,2 Dibromoethane
23	000075-21-8	ETHYLENE OXIDE	Oxirane
24	000111-30-8	GLUTARALDEHYDE	Pentanedial
25	000050-00-0	FORMALDEHYDE	Formaldehyde
26	009002-83-9	HALONS	Ether, chlorotrifluoro-homopolymer
27	000118-74-1	HEXACHLOROBENZENE	Benzene, hexachloro
28	000067-72-1	HEXACHLOROETHANE	Ethane, hexachloro
29	000302-01-2	HYDRAZINE	Hydrazine
30	007439-92-1	LEAD COMPOUNDS	Lead
31	000149-30-4	MBT	2(3H)-Benzothiazolethione
32	000594-42-3	MERCAPTAN, PERCHLOROMETHYL	Metanesulfeyl chloride, trichloro-
33	007439-97-6	MERCURY COMPOUNDS	Mercury
34	000074-87-3	METHYL CHLORIDE	Methane, chloro
35	000075-09-2	METHYLENECHLORIDE	Methylene, dichloro
36	002385-85-5	MIREX	
37	000087-86-5	PENTACHLOROPHENOL	Phenol, pentachloro
38	000127-18-4	PERCHLOROETHYLENE	Ethene, tetrachloro
39	000108-95-2	PHENIC ACID	Phenol
40	000075-44-5	PHOSGENE	Carbonyl chloride/Carbonic dichloride
41	000085-44-9	PTHALIC ANHYDRIDE	1,3 Isobenzofurandione
42	059536-65-1	POLYBROMINATED BIPHENYLS	Fire Master BP6
43	001336-36-3	POLYCHLORINATED BIPHENYLS	1,1-Biphenyl chloroderivatives
44	000071-55-6	1,1,1-TRICHLOROETHANE	
45	000079-01-6	TRICHLOROETHYLENE	Ethene, trichloro
46	000688-73-3	TRIBUTYLTIN	
47	007782-49-2	SELENIUM	Selenium
48	000075-01-4	VINYL CHLORIDE	Chloroethylene

Annex 2. Criteria for Categorization of Hazardous Waste Generators

Hazardous Waste Number	Waste Type	Small Generator (kg/yr)	Large Generator (kg/yr)
A101	Cyanide Waste	<10,000[a]	≥10,000[a]
L406	PCBs Waste		
M502	Asbestos Waste		
M501-M503	Medical Waste		
D401-D499	Waste with Inorganic Chemicals	<20,000[b]	≥20,000[b]
E501-E599	Reactive Chemical Waste		
F602-F699	Inks/Dyes/Pigments/Paint/Resins/Latex/Adhesives/ Organic Sludge		
G703-G704	Waste Organic Solvents		
K301-K303	Stabilized Waste		
L401-L402	Other Organic Chemicals		
M504-M506	Miscellaneous Waste		
B201-B299	Acid Waste	<36,000[c]	≥36,000[c]
C301-C399	Alkali Waste		
I101	Oil Waste		
J201	Empty Chemical Containers		
H802	Putrescible Waste	<500,000[d]	≥500,000[d]
D407	Busted fluorescent lamps	<100 pieces/year or <300 lighting fixtures	≥100 pieces/year or ≥300 lighting fixtures

Annex 3: Effluent Quality Parameters (DAO 1990-35)

Arsenic
Cadmium
Chromium (hexavalent)
Cyanide
Lead
Mercury (total)
PCBs
Formaldehyde

Annex 4. Environmental Incident Report

Name of Establishment:	
Address:	
Name of Managing Head:	
Name of PCO:	
Date of Incident:	
Time of Incident:	

Type of Incident

- ☐ Breakdown of wastewater treatment plant
- ☐ Breakdown of air pollution control device
- ☐ Release of chemicals to environment media
- ☐ Release of hazardous waste to environment media
- ☐ Exceedance to effluent standards
- ☐ Exceedance to emission standards
- ☐ Others, please specify _____

Description of Incident

Estimated Amount of Chemicals, Hazardous Wastes, Emissions, and/or Effluents Released to the Receiving Environment

Probable Cause of the Incident

Interim/Contingency Measures to Mitigate Any Potential Negative Impacts

Completed by: *(Signature of PCO)*		**Date:**	
Noted by: *(Signature of Managing Head)*		**Date:**	

Note: Corrective Actions to Prevent Recurrence, Estimated Amount of the Needed Recovery/Repair/Clean Up, and Estimated Date of Completion for Any Needed Repairs should be reflected in the next submission of the SMR.

Annex 5. Requirements for Training Organization/Institution Recognition and its Renewal

1. Recognition of Training Organization/Institution

In the application for recognition, the training organization/institution must meet the following minimum requirements:

- Have a valid business registration, license, permit to operate, or any other proof to show existence as a juridical entity recognized under appropriate issuances/laws;
- Have at least two trainers on environmental management with the following qualifications:
  - Graduate of any engineering or science course;
  - With ten (10) years experience in environmental management; and
  - With five (5) years experience in conducting environmental trainings.
- Have basic training equipment, monitoring instruments, facilities, and materials; and
- Have module/syllabus that are prescribed by EMB.

2. Renewal of Recognition of Training Organization/Institution

In the renewal of recognition, the training organization/institution must submit the following minimum requirements:

- Updated training organization/institution profile;
- Updated resume of trainers and consultants;
- Annual Accomplishment Report using the attached prescribed form;
- Reports on monitoring and evaluation of training/services rendered; and
- Calendar of trainings or services.

3. Suspension of Recognition of Training Organization/Institution

Recognition of the training organization/institution shall be suspended based on any of the following grounds:

- Inactivity as environmental management training organization/institution for one (1) year
- With pending legal case

4. Cancellation of Recognition of Training Organization/Institution

Recognition of the training organization/institution shall be cancelled based on any of the following grounds:

- Two times suspension and committing any ground for suspension for the third time (commission of any crime or offense of any employee that is detrimental to the institution)

Department of Environment and Natural Resources
Environmental Management Bureau

PCO Training Organization/Institution Annual Accomplishment Report Form	Revision No. 0
Name of Training Organization/Institution:	
Recognition No.:	
Validity:	
Covered Period:	

Title of Training	Date of Training	Venue	Name of Trainor	No. of Participants	No. of Companies

A. Curriculum

B. Application to Job/Workplace

C. Trainers/Facilitators

D. Training Specific Questions

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City
Tel Nos. 929-6626 to 29; 929-6633 to 35
926-7041 to 43; 929-6252; 929-1669
Website: http://www.denr.gov.ph / E-mail: web@denrgov.ph

DENR Administrative Order
No. 2016 -08

MAY 2 4 2016

SUBJECT: **Water Quality Guidelines and General Effluent Standards of 2016**

Pursuant to Section 19e and 19f of Republic Act (RA) 9275, otherwise known as the Philippine Clean Water Act of 2004, and Executive Order 192 (Providing the Reorganization of the Department of Environment, Energy and Natural Resources; Renaming it as the Department of Environment and Natural Resources) dated 10 June 1987, the Department of Environment and Natural Resources (DENR) hereby adopts and promulgates these Water Quality Guidelines (WQG) and General Effluent Standards (GES).

SECTION 1.0 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 2.0 Objectives. This Administrative Order is issued to provide guidelines for the classification of water bodies in the country; determination of time trends and the evaluation of stages of deterioration/enhancement in water quality; evaluation of the need for taking actions in preventing, controlling, or abating water pollution; and designation of water quality management areas (WQMA). In addition, this Order is issued to set the General Effluent Standards (GES).

SECTION 3.0 Scope and Coverage. The WQG applies to all water bodies in the country: freshwaters, marine waters, and groundwater; and shall be used for classifying water bodies, determining time trends, evaluating stages of deterioration or enhancement in water quality, and as basis for taking positive actions in preventing, controlling, or abating water pollution. Moreover, this WQG shall be used in the process of designating WQMA.

The GES applies to all point sources of pollution, regardless of volume, that discharge to receiving body of water or land. The GES shall be used regardless of the industry category.

SECTION 4.0 Definition of Terms. For purposes of this Order, the following terms shall have the following meanings:

a) **"Annual Average"** means the sum of all values in one year divided by the number of values.

b) **"Assimilative Capacity"** refers to the amount of contaminant load that can be discharged to a specific water body without exceeding the water quality guidelines.

c) **"Discharge"** includes, but is not limited to, the act of spilling, leaking, pumping, pouring, emitting, emptying, releasing or dumping of any material into a water body or onto land from which it might flow or drain into said water.

d) **"Effluent"** means discharges from known source, which is passed into a body of water or land, or wastewater flowing out of a manufacturing plant, industrial plant including domestic, commercial, and recreational facilities.

e) **"Establishment"** refers to a recognizable economic unit under a single ownership or control, i.e., under a single legal entity, which engages in one or predominantly one kind of economic activity at a single physical location. This includes industrial, commercial, and institutional establishments.

f) **"Freshwater"** means water containing less than 500 parts per million dissolved common salt, sodium chloride, such as that in groundwater, rivers, ponds and lakes.

g) **"General Effluent Standards (GES)"** means any legal restriction or limitation on quantities, rates, and/or concentrations or any combination thereof, of physical, chemical or biological parameters of effluent which a person or point source is allowed to discharge into a body of water or land; that is applicable to all industry categories and defined according to the classification of the receiving water body.

h) **"Geometric Mean"** is the n^{th} root of the product of a series of n numbers. It is a calculation to determine an average when the set of numbers covers a wide range.

i) **"Groundwater"** refers to subsurface water that occurs beneath a water table in soils and rocks, or in geological formations.

j) **"Industry"** means the set of all production units engaged primarily in the same or similar kinds of productive economic activity.

k) **"Marine Waters"** refer to waters with salinity levels not less than 30 parts per thousand, at least 95 percent of the time.

l) **"Maximum Allowable Limit"** are values that should not be exceeded at any point in time.

m) **"Natural Background Concentration"** refers to the amount of naturally occurring chemical substances derived/originating from natural processes in the environment.

n) **"Navigable Waters"** means the waters of the Philippines, including the territorial sea and inland waters suitable for water transport.

o) **"Point Source"** means any identifiable source of pollution with specific point of discharge into a particular water body".

p) **"Pollutant"** refer to any substance, whether solid, liquid, gaseous or radioactive, which directly or indirectly:

(i) alters the quality of any segment of the receiving water body so as to affect or tend to affect adversely any beneficial use thereof;
(ii) is hazardous or potentially hazardous to health;
(iii) imparts objectionable odor, temperature change, or physical, chemical

or biological change to any segment of the water body;or

(iv) is in excess of the allowable limits or concentrations or quality standards specified, or in contravention of the condition,limitation or restriction prescribed in RA 9275.

q) **"Potable Water"** means water suitable (both health and acceptability considerations) for drinking and cooking purposes.

r) **"Primary Contact Recreation"** refers to any form of recreation, where there is intimate contact of the human body with water, such as swimming, water skiing, or skin diving.

s) **"Primary Parameters"** are the required minimum water quality parameters to be monitored for each water body.

t) **"Protected Water"** refers to a watercourse or a water body, or any segment thereof, that is classified as a source of public water supply, harvesting of shellfish for direct human consumption, or that which is designated by competent a government authority or by legislation as a national marine park and reserve, including coral reef park and reserve.

u) **"Receiving Water Body"** refers to the water body into which surface water, wastewater, and effluent are discharged.

v) **"Secondary Parameters"** are other water quality parameters that shall be used in baseline assessments as part of the Environmental Impact Assessment and other water quality monitoring purposes.

w) **"Secretary"** means the Secretary of the Department of Environment and Natural Resources.

x) **"Significant Effluent Quality Parameters"** are parameters specific to the processes of an establishment.

y) **"Strong Wastewater"** refers to wastewater whose initial Biochemical Oxygen Demand (BOD) value before treatment is equal to or greater than 3,000 milligram per liter (mg/L).

z) **"Surface Waters"** refer to waters (e.g. rivers, lakes, bays, etc.) which are open to the atmosphere and subject to surface runoff.

aa) **"Treatment"** refers to any method, technique, or process designed to alter the physical, chemical, biological, or radiological character or composition of any waste or wastewater to reduce or prevent pollution.

bb) **"Water Body"** means both natural and man-made bodies of fresh, brackish, and saline waters, and includes, but is not limited to, aquifers, groundwater, springs, creeks, streams, rivers, ponds, lagoons, water reservoirs, lakes, bays, estuarine, coastal and marine waters. Water bodies do not refer to those constructed, developed and used purposely as water treatment facilities and/or water storage for recycling and re-use, which are integral to process industry or manufacturing.

cc) **"Water Pollution"** means any alteration of the physical, chemical or biological or radiological properties of a water body resulting in the impairment of its purity or quality.

dd) **"Water Quality Guidelines (WQG)"** refer to the level for a water constituent or numerical values of physical, chemical, biological, and bacteriological or radiological parameters which are used to classify water resources and their use, which do not result in significant health risk.

These are not intended for direct enforcement but only for water quality management purposes, such as determining time trends, evaluating stages of deterioration or enhancement of the water quality, and as basis for taking positive action in preventing, controlling, or abating water pollution.

ee) **"Water Quality Management Area (WQMA)"** are certain areas designated using appropriate physiographic units (i.e. watershed, river basins or water resources regions), having similar hydrological, hydrogeological, meteorological or geographic conditions which affect the physiochemical, biological and bacteriological reactions and diffusions of pollutants in the water bodies, or otherwise share common interest or face similar development programs, prospects or problems.

SECTION 5.0 Classification of Water Bodies. For purposes of maintaining water quality according to its intended beneficial usage, the following classification of water bodies shall be adopted (see Tables 1-2).

Table 1. Water Body Classification and Usage of Freshwater

Classification	Intended Beneficial Use
Class AA	Public Water Supply Class I – Intended primarily for waters having watersheds, which are uninhabited and/or otherwise declared as protected areas, and which require only approved disinfection to meet the latest PNSDW
Class A	Public Water Supply Class II – Intended as sources of water supply requiring conventional treatment (coagulation, sedimentation, filtration and disinfection) to meet the latest PNSDW
Class B	Recreational Water Class I – Intended for primary contact recreation (bathing, swimming, etc.)
Class C	1. Fishery Water for the propagation and growth of fish and other aquatic resources 2. Recreational Water Class II – For boating, fishing, or similar activities 3. For agriculture, irrigation, and livestock watering
Class D	Navigable waters

Note: For unclassified water bodies, classification shall be based on the beneficial use as determined by the Environmental Management Bureau (EMB).

Table 2. Water Body Classification and Usage of Marine Waters

Classification	Intended Beneficial Use
Class SA	1. Protected Waters – Waters designated as national or local marine parks, reserves, sanctuaries, and other areas established by law (Presidential Proclamation 1801 and other existing laws), and/or declared as such by appropriate government agency, LGUs, etc. 2. Fishery Water Class I – Suitable for shellfish harvesting for direct human consumption
Class SB	1. Fishery Water Class II – Waters suitable for commercial propagation of shellfish and intended as spawning areas for milkfish (*Chanos chanos*) and similar species 2. Tourist Zones – For ecotourism and recreational activities 3. Recreational Water Class I – Intended for primary contact recreation (bathing, swimming, skin diving, etc.)

Classification	Intended Beneficial Use
Class SC	1. Fishery Water Class III – For the propagation and growth of fish and other aquatic resources and intended for commercial and sustenance fishing 2. Recreational Water Class II – For boating, fishing, or similar activities 3. Marshy and/or mangrove areas declared as fish and wildlife sanctuaries
Class SD	Navigable waters

Note: For unclassified water bodies, classification shall be based on the beneficial use as determined by EMB.

SECTION 6.0 Water Quality Guidelines. The rules and regulations established in this section are intended to maintain and preserve the quality of all water bodies based on their intended beneficial usage and to prevent and abate pollution and contamination to protect public health, aquatic resources, crops, and other living organisms.

6.1 Guidelines for Water Quality (Freshwater and Marine Waters). The WQG provided for in Tables 3-6 shall be maintained for each water body classification. For purposes of this Order, the parameters defining the WQG are categorized as primary or secondary parameters.

Primary parameters (Table 3) are the required minimum water quality parameters to be monitored for each water body. Secondary parameters (Tables 4-6) are other water quality parameters to be used in baseline assessment as part of the Environmental Impact Assessment and other water quality monitoring purposes as defined in Table 3.1 (Recommended Parameters, Frequency and Duration of Sampling) of the Ambient Water Quality Monitoring Manual issued through EMB Memorandum Circular 2008-008.

Water quality monitoring procedures [i.e. water quality monitoring plan, sampling, quality assurance (QA), quality control (QC), etc.] shall also be in accordance with the above-mentioned EMB Memorandum Circular 2008-008.

Table 3. Water Quality Guidelines for Primary Parameters

Parameter	Unit	Water Body Classification								
		AA	**A**	**B**	**C**	**D**	**SA**	**SB**	**SC**	**SD**
BOD	mg/L	1	3	5	7	15	n/a	n/a	n/a	n/a
Chloride	mg/L	250	250	250	350	400	n/a	n/a	n/a	n/a
Color	TCU	5	50	50	75	150	5	50	75	150
Dissolved Oxygen[(a)] (Minimum)	mg/L	5	5	5	5	2	6	6	5	2
Fecal Coliform	MPN/100mL	<1.1	<1.1	100	200	400	<1.1	100	200	400
Nitrate as NO_3-N	mg/L	7	7	7	7	15	10	10	10	15
pH (Range)		6.5-8.5	6.5-8.5	6.5-8.5	6.5-9.0	6.0-9.0	7.0-8.5	7.0-8.5	6.5-8.5	6.0-9.0
Phosphate	mg/L	<0.003	0.5	0.5	0.5	5	0.1	0.5	0.5	5
Temperature[(b)]	°C	26-30	26-30	26-30	25-31	25-32	26-30	26-30	25-31	25-32
Total Suspended Solids	mg/L	25	50	65	80	110	25	50	80	110

Notes:

MPN/100mL – Most Probable Number per 100 milliliter
n/a – Not Applicable
TCU – True Color Unit
(a) Samples shall be taken from 9:00 AM to 4:00 PM.
(b) The natural background temperature as determined by EMB shall prevail if the temperature is lower or higher than the WQG; provided that the maximum increase is only up to 10 percent and that it will not cause any risk to human health and the environment.

Table 4. Water Quality Guidelines for Secondary Parameters-Inorganics

Parameter	Unit	Water Body Classification								
		AA	A	B	C	D	SA	SB	SC	SD
Ammonia as NH_3-N	mg/L	0.05	0.05	0.05	0.05	0.75	0.04	0.05	0.05	0.75
Boron	mg/L	0.5	0.5	0.5	0.75	3	0.5	0.5	5	20
Fluoride	mg/L	1	1	1	1	2	1.5	1.5	1.5	3
Selenium	mg/L	0.01	0.01	0.01	0.02	0.04	0.01	0.01	0.1	0.2
Sulfate	mg/L	250	250	250	275	500	250	250	275	500

Table 5. Water Quality Guidelines for Secondary Parameters-Metals[(c)]

Parameter	Unit	Water Body Classification								
		AA	A	B	C	D	SA	SB	SC	SD
Arsenic	mg/L	0.01	0.01	0.01	0.02	0.04	0.01	0.01	0.02	0.04
Barium	mg/L	0.7	0.7	0.7	3	4	0.1	0.7	1	4
Cadmium	mg/L	0.003	0.003	0.003	0.005	0.01	0.003	0.003	0.005	0.01
Chromium as Hexavalent Chromium (Cr^{6+})	mg/L	0.01	0.01	0.01	0.01	0.02	0.05	0.05	0.05	0.1
Copper as Dissolved Copper	mg/L	0.02	0.02	0.02	0.02	0.04	0.02	0.02	0.02	0.04
Iron	mg/L	1	1	1	1.5	7.5	1.5	1.5	1.5	7.5
Lead	mg/L	0.01	0.01	0.01	0.05	0.1	0.01	0.01	0.05	0.1
Manganese	mg/L	0.2	0.2	0.2	0.2	2	0.4	0.4	0.4	4
Mercury	mg/L	0.001	0.001	0.001	0.002	0.004	0.001	0.001	0.002	0.004
Nickel	mg/L	0.02	0.02	0.04	0.2	1	0.02	0.04	0.06	0.3
Zinc	mg/L	2	2	2	2	4	0.04	0.05	0.8	1.5

Note:

(c) Unless otherwise specified, the above parameters are expressed as total metals.

Table 6. Water Quality Guidelines for Secondary Parameters-Organics

Parameter	Unit	Water Body Classification								
		AA	A	B	C	D	SA	SB	SC	SD
Benzo(a)pyrene	µg/L	0.7	0.7	0.7	1.5	3	0.7	0.7	1.5	3
BTEX										
Benzene	mg/L	0.01	0.01	0.01	0.05	0.5	0.01	0.01	0.05	0.5
Toluene	mg/L	0.7	0.7	1	4	5	1	1	4	5
Ethylbenzene	mg/L	0.3	0.3	0.3	1.5	2	0.2	0.2	1.5	2
Xylenes	mg/L	0.5	0.5	0.5	1.5	1.8	0.5	0.5	1.5	1.8
Cyanide as Free Cyanide	mg/L	0.07	0.07	0.07	0.1	0.2	0.02	0.02	0.1	0.2
Organophosphate as Malathion	µg/L	1	1	1	3	6	1	1	3	6
Oil and Grease	mg/L	<1	1	1	2	5	1	2	3	5
Polychlorinated Biphenyls[d]	µg/L	<0.1	<0.1	0.2	0.5	1	0.3	0.3	0.5	1
Phenol & Phenolic Substances[e]	mg/L	<0.001	<0.001	<0.001	0.05	0.5	<0.001	<0.001	0.05	0.5
Surfactants (MBAS)	mg/L	<0.025	0.2	0.3	1.5	3	0.3	0.3	1.5	3
Trichloroethylene	mg/L	0.07	0.07	0.07	0.9	2	0.07	0.07	0.9	2
Total Organochlorine Pesticides[f]	µg/L	n/a	n/a	50	50	50	50	50	50	50
Aldrin	µg/L	0.03	0.03	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Chlordane	µg/L	0.2	0.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dichlorodiphenyltrichloroethane (DDT)	µg/L	1	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dieldrin	µg/L	0.03	0.03	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Endrin	µg/L	0.6	0.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Heptachlor	µg/L	0.03	0.03	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lindane	µg/L	2	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Methoxychlor	µg/L	50	50	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Toxaphene	µg/L	4	4	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:

CAS - Chemical Abstracts Service
IUPAC – International Union of Pure and Applied Chemistry
MBAS – Methylene Blue Active Substances
$\mu g/L$ – microgram per liter
(d) Polychlorinated Biphenyls (PCBs) include the nine Aroclors and 19 individual PCB congeners described below:

Compound	CAS#	IUPAC#
Aroclor 1016	12674-11-2	
Aroclor 1221	11104-28-2	
Aroclor 1232	11141-16-5	
Aroclor 1242	53469-21-9	
Aroclor 1248	12672-29-6	
Aroclor 1254	11097-69-1	
Aroclor 1260	11096-82-5	
Aroclor 1262	37324-23-5	
Aroclor 1268	11100-14-4	
2-Chlorobiphenyl	2051-60-7	1
2,3-Dichlorobiphenyl	16605-91-7	5
2,2',5-Trichlorobiphenyl	37680-65-2	18
2,4',5-Trichlorobiphenyl	16606-02-3	31
2,2',3,5'-Tetrachlorobiphenyl	41464-39-5	44

Compound	CAS#	IUPAC#
2,2',5,5'-Tetrachlorobiphenyl	35693-99-3	52
2,3',4,4'-Tetrachlorobiphenyl	32598-10-0	66
2,2',3,4,5'-Pentachlorobiphenyl	38380-02-8	87
2,2',4,5,5'-Pentachlorobiphenyl	37680-73-2	101
2,3,3',4',6-Pentachlorobiphenyl	38380-03-9	110
2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	138
2,2',3,4,5,5'-Hexachlorobiphenyl	52712-04-6	141
2,2',3,5,5',6-Hexachlorobiphenyl	52663-63-5	151
2,2',4,4',5,5'-Hexachlorobiphenyl	35065-27-1	153
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	170
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	180
2,2',3,4,4',5',6-Heptachlorobiphenyl	52663-69-1	183
2,2',3,4',5,5',6-Heptachlorobiphenyl	52663-68-0	187
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	40186-72-9	206

(e) Phenols include 2-chlorophenol, 2,4-dichlorophenol, and 2,4,6-trichlorophenol.
(f) When monitoring for Class AA and A waters, the individual organochlorine pesticides shall be monitored. For Class B, C, D, SA, SB, SC, and SD; Total Organochlorine Pesticides shall be monitored, which refers to the organochlorine pesticides listed in Table 0-6 plus Benzene Hexachloride (BHC) ($\alpha,\beta,\delta,\gamma$), 4,4' Dichlorodiphenyldichloroethane (DDD), 4,4' Dichlorodiphenyldichloroethylene (DDE), Endosulfan (I, II, and sulfate).

6.2 Guidelines for Groundwater Quality. Groundwater shall be maintained at a quality consistent with its intended beneficial usage. For purposes of preserving and protecting groundwater quality, the WQG set forth in Table 7 shall be maintained.

Table 7. Groundwater Quality Guidelines

Intended Beneficial Use	Groundwater Quality Guidelines
Source of Potable Water and Other Domestic Use	Adopt Class A WQG (except BOD and Dissolved Oxygen)
Bathing and Other Primary Contact Recreation	Adopt Class B WQG (except BOD and Dissolved Oxygen)
Irrigation, Fish Culture, Livestock Watering	Adopt Class C WQG (except BOD, Dissolved Oxygen, and Total Suspended Solids)

6.3 Important Considerations. The WQG are set regardless of the assimilative capacity of water bodies, and to ensure that assimilative capacities are not exceeded, the WQG set forth in Tables 3-6 are:

a) Annual average of at least 10 data sets for primary parameters except for fecal coliform.

b) Annual average of at least 4 data sets for secondary inorganic parameters.

c) Geometric mean of at least three data sets per quarter for fecal coliform. Further, maximum allowable limit for fecal coliform is twice the WQG per sample.

d) Maximum allowable limit for secondary metals and organics parameters.

e) For water quality parameters that are naturally occurring in the Philippines, the natural background concentration as determined by EMB shall prevail if the concentration is higher that the WQG; provided that the maximum increase is only up to 10 percent and that it will not cause any risk to human health and the environment.

SECTION 7.0 General Effluent Standards. Discharges from any point source shall at all times meet the effluent standards set forth in Tables 2-3 to maintain the required water quality per water body classification. The GES shall be used regardless of the industry category.

Effluent used for irrigation and other agricultural purposes shall conform to the Department of Agriculture Administrative Order 2007-26 or the Guidelines on the Procedures and Technical Standards for the Issuance of a Certification Allowing for the Safe Re-use of Wastewater for the Purposes of Irrigation and Other Agricultural Uses.

Effluent quality monitoring procedures (i.e. effluent quality monitoring plan, sampling, QA, QC, etc.) shall be in accordance with the Effluent Quality Monitoring Manual issued through EMB Memorandum Circular 2008-008.

7.1 Significant Effluent Quality Parameters per Sector. For purposes of streamlining compliance and enforcement of the GES, the significant effluent quality parameters per sector are listed in Table 8.

Table 8. Significant Effluent Quality Parameters per Sector

PSIC Code	Industry Category	Significant Parameters
A. Agriculture, Forestry and Fishing		
014	Animal production	BOD, Total Suspended Solids, Total Coliform (for Class B and SB), Ammonia, Phosphate
032	Aquaculture (excluding fish pens)	BOD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate
B. Mining and Quarrying		
05	Mining of coal and lignite	Color, pH, Total Suspended Solids, Nitrate, Sulfate, Manganese, Iron, Arsenic, Cadmium, Mercury, Lead
06	Extraction of crude petroleum and natural gas, and support activities	pH, Total Suspended Solids, Sulfate, Fluoride, Barium, Chromium, Nickel, Copper, Zinc, Mercury, Oil and Grease, Phenol & Phenolic Substances, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene
07100	Mining of iron ores	Color, pH, Total Suspended Solids, Nitrate, Manganese, Iron, Arsenic, Cadmium, Lead
0722	Mining of precious metal ores	
	Gold ore mining	pH, Total Suspended Solids, Nitrate, Cyanide, Copper, Zinc, Arsenic, Mercury, Lead
	Silver ore mining	pH, Total Suspended Solids, Nitrate, Cyanide, Copper, Zinc, Arsenic, Mercury, Lead
	Platinum ore mining	pH, Total Suspended Solids, Nitrate, Sulfate, Cyanide, Manganese, Iron, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead
07291	Copper ore mining	pH, Total Suspended Solids, Nitrate, Sulfate, Cyanide, Iron, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead
07292	Chromite ore mining	pH, Total Suspended Solids, Nitrate, Chromium, Arsenic, Cadmium, Mercury, Lead
07293	Manganese ore mining	pH, Total Suspended Solids, Nitrate, Manganese, Arsenic, Cadmium, Lead
07294	Nickel ore mining	pH, Total Suspended Solids, Manganese, Arsenic, Cadmium, Lead, Nickel
08913	Pyrite mining	pH, Total Suspended Solids, Sulfate, Manganese, Iron, Copper, Arsenic, Lead

PSIC Code	Industry Category	Significant Parameters
08914	Rock phosphate mining	pH, COD, Total Suspended Solids, Ammonia, Phosphate, Fluoride, Surfactants
C. Manufacturing		
10110	Slaughtering and meat packing	Temperature, pH, BOD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Oil and Grease
10120	Production processing and preserving of meat and meat products	Temperature, pH, BOD, Total Suspended Solids, Oil and Grease
1020	Processing and preserving of fish, crustaceans and mollusks (except carrageenan)	Temperature, pH, BOD, Total Suspended Solids, Nitrate, Oil and Grease
10205	Processing of seaweeds; manufacture of agar-agar or carrageenan	Temperature, pH, COD, Total Suspended Solids
1030	Processing and preserving of fruits and vegetables	Temperature, pH, BOD, Total Suspended Solids, Oil and Grease
104	Manufacture of vegetable and animal oils and fats	Temperature, pH, BOD, Total Suspended Solids, Nitrate, Ammonia, Oil and Grease
105	Manufacture of dairy products	Temperature, pH, BOD, Total Suspended Solids, Nitrate, Oil and Grease
106	Manufacture of grain mill products, starches and starch products (except rice, corn, and cassava flour milling)	Temperature, pH, COD, Total Suspended Solids, Nitrate
10610	Rice/corn milling	BOD, Total Suspended Solids
10621	Cassava flour milling	BOD, Total Suspended Solids, Cyanide
107	Manufacture of other food products (except sugar)	Temperature, BOD, Total Suspended Solids, Oil and Grease
1072	Manufacture of sugar	
	Sugar milling	Temperature, pH, BOD, Total Suspended Solids, Nitrate
	Sugar refining	Temperature, pH, COD, Total Suspended Solids, Nitrate
10800	Manufacture of prepared animal feeds	Temperature, pH, BOD, Total Suspended Solids, Nitrate, Ammonia, Oil and Grease
11	Manufacture of beverages	Color, Temperature, pH, BOD, Total Suspended Solids, Nitrate, Ammonia
12	Manufacture of tobacco products	Color, Temperature, pH, COD, Total Suspended Solids
13	Manufacture of textiles	Color, Temperature, pH, BOD, COD, Chromium, Phenol & Phenolic Substances, Oil and Grease, Surfactants, Ammonia, Trichloroethylene, Copper

PSIC Code	Industry Category	Significant Parameters
14	Manufacture of wearing apparel	Temperature, pH, Surfactants, Color, COD
15110	Tanning and dressing of leather	Color, pH, COD, Total Suspended Solids, Total Coliform, Ammonia, Chloride, Chromium, Oil and Grease, Phenol & Phenolic Substances
1621	Manufacture of veneer sheets; manufacture of plywood, laminated board, particle board and other panels and board; wooden window and screens	COD, Total Suspended Solids, Nitrate, Sulfate, Boron, Chromium, Copper, Arsenic, Benzo(a)pyrene
17012	Pulp milling including manufacture of pulp, paper and paperboard	Color, Temperature, pH, COD, Total Suspended Solids, Nitrate, Phenol & Phenolic Substances, Sulfate, Phosphate, Ammonia
17013	Paper and paperboard milling	Color, Temperature, pH, COD, Total Suspended Solids, Nitrate, Phosphate, Ammonia, Barium, Boron, Chloride, Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Zinc
18110	Printing	Color, pH, COD, Total Suspended Solids, Cadmium, Chromium, Zinc, Oil and Grease
19100	Manufacture of coke oven products	Temperature, pH, COD, Total Suspended Solids, Ammonia, Sulfate, Cyanide, metals (except Arsenic and Barium), Oil and Grease, Phenol & Phenolic Substances, Polychlorinated Biphenyls, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene
19200	Manufacture of refined petroleum products	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Sulfates, Phosphate, Cyanide, Fluoride, Chloride, Chromium, Iron, Nickel, Copper, Zinc, Lead, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene, Phenol & Phenolic Substances
19900	Manufacture of other fuel products (biodiesel)	Temperature, pH, COD, Total Suspended Solids, Oil and Grease
20111, 20114	Manufacture of ethanol	
	Manufacture of ethanol for: • Food and beverage • Fuel application	Temperature, pH, BOD, Total Suspended Solids, Ammonia, Nitrate, Sulfate, Chloride
	Blending of ethanol for: • Antiseptic • Solvent (denatured)	pH, COD

PSIC Code	Industry Category	Significant Parameters
20112	Manufacture of industrial (compressed/liquefied) gases	Temperature, pH, COD, Nitrate, Sulfate, Chloride, Mercury, and metals depending on the catalysts used
20113, 20116, 20117, 20119	Manufacture of inorganic, organic and other basic chemicals	Color, Temperature, pH, COD, Total Suspended Solids and other parameters depending on the major chemical/s manufactured
20115	Manufacture of alcohol except ethyl alcohol	Temperature, pH, COD, and metals depending on the catalysts used
20120	Manufacture of fertilizers and nitrogen compounds	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate, Fluoride, and metals depending on the catalysts used
2013	Manufacturing of plastics and synthetic rubber in primary forms	Temperature, pH, COD, Ammonia, Sulfate, Cyanide, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene, Phenol & Phenolic Substances, and metals depending on the catalysts used
20210	Manufacture of pesticides and other agro-chemical products	pH, COD, Total Suspended Solids, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Trichloroethylene, Malathion, Total Organochlorine Pesticides, and metals depending on the catalysts used
2022, 20293	Manufacture of paints, ink, varnishes and similar coating materials	Color, Temperature, pH, COD, Total Suspended Solids, Barium, Selenium, Chromium, Nickel, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Phenol & Phenolic Substances, Trichloroethylene
2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate, Chloride, Fluoride, Boron, Selenium, Zinc, Oil and Grease, Surfactants
20294	Manufacture of glues and adhesives	
	Synthetic glues and adhesives	pH, COD, Cyanide, Zinc, Mercury, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Phenol & Phenolic Substances
	Animal/plant derived glues and adhesives	pH, COD, Boron, Chloride
20299	Manufacture of miscellaneous chemical products, not elsewhere classified	Color, pH, Temperature, COD, Total Suspended Solids and other parameters depending on the major chemical/s manufactured

PSIC Code	Industry Category	Significant Parameters
2030	Manufacture of man-made fibers (except glass fibers)	Temperature, COD, Total Suspended Solids
21001	Manufacture of drugs and medicines including biological products such as bacterial and virus vaccines, sera and plasma	pH, COD, Total Suspended Solids
2310	Manufacture of glass and glass products	Color, Temperature, pH, Total Suspended Solids, Fluoride, Boron, Selenium, Arsenic, Lead, Oil and Grease
239	Manufacture of ceramics, clay products, construction aggregates, asphalt, asbestos and other non-metallic minerals (except cement)	Color, Temperature, pH, COD, Chromium, Copper, Zinc, Cadmium, Lead
23940	Manufacture of cement	Temperature, pH, Total Suspended Solids
241, 2431	Manufacture of iron and steel	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate, Fluoride, Chloride, Cyanide, Barium, Chromium, Manganese, Iron, Nickel, Zinc, Cadmium, Mercury, Lead, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes
24210	Manufacture of precious metals	Temperature, pH, COD, Total Suspended Solids, Ammonia, Nitrate, Sulfate, Cyanide, Chloride, Boron, Chromium, Iron, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead, Oil and Grease, Phenol & Phenolic Substances
24220	Non-ferrous smelting and refining, except precious metals	Temperature, pH, COD, Total Suspended Solids, Selenium, Manganese, Iron, Nickel, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead
24230	Non-ferrous rolling, drawing, and extrusion mills	Temperature, pH, COD, Total Suspended Solids, Ammonia, Phosphate, Boron, Fluoride, Zinc, Arsenic, Cadmium, Chromium, Mercury, Lead, Cyanide, Phenol & Phenolic Substances
24240	Manufacture of pipe fittings of non-ferrous metal	Temperature, pH, COD, Total Suspended Solids, Ammonia, Phosphate, Boron, Fluoride, Zinc, Arsenic, Cadmium, Chromium, Mercury, Lead, Cyanide, Phenol & Phenolic Substances, Oil and Grease

PSIC Code	Industry Category	Significant Parameters
24290	Manufacture of basic precious and non-ferrous metal, not elsewhere classified	Temperature, pH, COD, Total Suspended Solids, Ammonia, Phosphate, Boron, Fluoride, Zinc, Arsenic, Cadmium, Chromium, Mercury, Lead, Cyanide, Phenol & Phenolic Substances
2431	Casting/foundry of iron and steel	Temperature, pH, COD, Total Suspended Solids, Copper, Zinc, Oil and Grease
2432	Casting of Non-ferrous metal casting such as aluminum, copper and zinc alloys	Temperature, pH, COD, Total Suspended Solids, Sulfate, Fluoride, Iron, Copper, Zinc, Arsenic, Cadmium, Chromium, Mercury, Lead
25920	Treatment, coating, and machining of metals	pH, COD, Total Suspended Solids, Ammonia, Nitrate, Phosphate, Sulfate, Cyanide, Fluoride, Boron, Chromium, Iron, Nickel, Copper, Zinc, Cadmium, Lead, Oil and Grease, Trichloroethylene
261	Manufacture of electronic components	pH, COD, Total Suspended Solids, Fluoride, Chloride, Boron, Oil and Grease, Trichloroethylene, and Metals depending on the major electronic components manufactured
2720	Manufacture of batteries and accumulators	pH, COD, Total Suspended Solids, Fluoride, Selenium, Manganese, Iron, Nickel, Copper, Zinc, Cadmium, Mercury, Lead, Oil and Grease
D. Electricity, Gas, Steam and Air Conditioning Supply		
35100	Electric power generation (except transmission and distribution)	
	Coal	Temperature, pH, COD, Total Suspended Solids, Phosphate, Sulfate, Chloride, Boron, Chromium, Nickel, Copper, Zinc, Arsenic, Cadmium, Mercury, Lead, Oil and Grease
	Natural gas	Temperature, pH, COD, Total Suspended Solids, Phosphate, Chloride, Chromium, Zinc
	Oil (Petroleum)	Temperature, pH, COD, Total Suspended Solids, Phosphate, Chloride, Chromium, Copper, Zinc, Arsenic, Cadmium, Lead, Oil and Grease
	Geothermal	Temperature, pH, COD, Total Suspended Solids, Chloride, Boron, Chromium, Zinc, Arsenic, Cadmium, Mercury, Lead
	Hydro	Oil and Grease
	Biomass	Temperature, pH, COD, Total Suspended Solids, and other parameters depending on the nature of the feedstock.

PSIC Code	Industry Category	Significant Parameters
35200	Manufacture of gas; distribution of gaseous fuels through mains	Temperature, pH, COD, Total Suspended Solids, Nitrate, Cyanide, Chloride, Chromium, Nickel, Zinc, Arsenic, Cadmium, Mercury, Lead, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene, Phenol & Phenolic Substances
35300	Air conditioning supply and production of ice (except steam production)	Temperature, pH, COD, Ammonia, Nitrate, Phosphate, Sulfate, Chloride, Chromium, Zinc
E. Water Supply; Sewerage, Waste Management and Remediation Activities		
36000	Water collection, treatment and supply (except those intended to prevent pollution)	pH, Total Suspended Solids, Chloride, Fluoride, Iron
37000	Sewerage (operation of sewer systems or sewage treatment facilities that collect, treat, and dispose of sewage)	BOD, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants
38210	Treatment and disposal of non-hazardous waste	Color, Temperature, pH, COD, Total Suspended Solids, Total Coliform, Ammonia, Nitrate, Phosphate, Sulfate, Chloride, Oil and Grease
38220	Treatment and disposal of hazardous waste	Color, Temperature, pH, COD, Total Suspended Solids, and other parameters depending on the nature of their activities
39000	Remediation activities and other waste management services	Color, Temperature, pH, COD, Total Suspended Solids and other parameters depending on the nature of remediation activity
G. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles		
452, 454	Maintenance and repair of vehicles, their parts and components (excluding vulcanizing/tire related preparations)	Color, pH, Total Suspended Solids, Ammonia, Nitrate, Nickel, Cadmium, Mercury, Lead, Oil and Grease, Benzo(a)pyrene, Surfactants
47300, 4661	Wholesale and retail sale of automotive fuels	Total Suspended Solids, Oil and Grease, Benzene, Toluene, Ethylbenzene, Xylenes, Benzo(a)pyrene
H. Transportation and Storage		
52104	Cold storage	Color, Temperature, pH, COD, Total Suspended Solids, Ammonia, Oil and Grease
I. Accommodation and Food Services		
55	Hotels, motels, resorts, dormitories and other accommodation services	BOD, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants

PSIC Code	Industry Category	Significant Parameters
56	Restaurants, food chains, bars and other food/beverage services	BOD, Total Suspended Solids, Oil and Grease, Surfactants
L. Real Estate Activities		
681	Real estate activities with own or leased property	BOD, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants
M. Professional, Scientific and Technical Activities		
71200	Technical testing and analysis	All significant parameters depending on the nature of their activity
7210	Research and experimental development on natural sciences and engineering	All significant parameters depending on the nature of their activity
75	Veterinary activities	Color, pH, COD, Total Suspended Solids, Fecal Coliform, Oil and Grease, Surfactants
P. Education		
85	Public and private education (including support activities)	BOD, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, and all significant parameters depending on the nature of their activity
Q. Human Health and Social Works		
86, 87	Hospitals, clinics, nursing homes and other human health and residential care activities	Color, Temperature, pH, BOD, Total Suspended Solids, Fecal Coliform, Ammonia, Nitrate, Phosphate, Oil and Grease, Surfactants
86900	Other human health activities - medical laboratories inside and outside of medical facilities	All significant parameters depending on the nature of their activity
S. Other Service Activities		
96210	Washing and dry cleaning of textile and fur products	COD, Total Suspended Solids, Ammonia, Chloride, Barium, Oil and Grease, Surfactants, Trichloroethylene
96300	Funeral and related activities	COD, Total Suspended Solids, Total Coliform, Ammonia, Phosphate, Sulfate
Other Classifications		
OC1	Public markets	Color, Temperature, pH, BOD, Total Suspended Solids, Ammonia, Nitrate, Chloride, Oil and Grease
OC2	Scrubbing of flue gases from firing systems (primarily in scrubbing of flue gases from firing systems). This shall not apply to wastewater from other industrial waste-	Color, Temperature, pH, COD, Sulfate, Fluoride, Chromium, Nickel, Copper, Cadmium, Mercury

PSIC Code	Industry Category	Significant Parameters
	gas-scrubbing systems, from cooling circuits of power stations and industrial processes	
OC3	Effluent from oil water separators of auxiliary facilities	pH, Total Suspended Solids, Oil and Grease
OC4	Effluent from cooling ponds, cooling towers, and similar facilities (non-contact cooling system)	Temperature, pH

Notes:

COD – Chemical Oxygen Demand
PSIC – Philippine Standard Industrial Classification (2009)

1. For sectors not included in Table 8 of this Order, EMB Central Office shall determine the significant effluent parameters for the said sector.
2. Domestic sewage of all establishments shall be monitored for the same parameters listed in PSIC No. 37000.

7.2 Effluent Standards. Consistent with the goal of maintaining the quality of water bodies based on their intended beneficial usages, Table 9 shall be enforced and complied with at all times.

7.3 Effluent Standards for BOD for Strong Wastewater. For establishments with influent BOD equal to or greater than 3,000 mg/L and the receiving water body is Class C, D, SC, or SD, the applicable effluent standards in Table 10 shall at all times be enforced and complied with.

For parameters other than BOD, Table 9 shall apply.

Table 9. Effluent Standards[g]

Parameter	Unit	Water Body Classification								
		AA	A	B	C	D	SA	SB	SC	SD
Ammonia as NH_3-N	mg/L	NDA	0.5	0.5	0.5	7.5	NDA	0.5	0.5	7.5
BOD	mg/L	NDA	20	30	50	120	NDA	30	100	150
Boron	mg/L	NDA	2	2	3	12	NDA	2	20	80
Chloride	mg/L	NDA	350	350	450	500	NDA	n/a	n/a	n/a
COD	mg/L	NDA	60	60	100	200	NDA	60	200	300
Color	TCU	NDA	100	100	150	300	NDA	100	150	300
Cyanide as Free Cyanide	mg/L	NDA	0.14	0.14	0.2	0.4	NDA	0.04	0.2	0.4
Fluoride	mg/L	NDA	2	2	2	4	NDA	3	3	6
Nitrate as NO_3-N	mg/L	NDA	14	14	14	30	NDA	20	20	30
pH (Range)		NDA	6.0-9.0	6.0-9.0	6.0-9.5	5.5-9.5	NDA	6.5-9.0	6.0-9.0	5.5-9.5
Phosphate	mg/L	NDA	1	1	1	10	NDA	1	1	10
Selenium	mg/L	NDA	0.02	0.02	0.04	0.08	NDA	0.02	0.2	0.4
Sulfate	mg/L	NDA	500	500	550	1,000	NDA	500	550	1,000
Surfactants (MBAS)	mg/L	NDA	2	3	15	30	NDA	3	15	30
Temperature[h]	°C change	NDA	3	3	3	3	NDA	3	3	3
Total Suspended Solids	mg/L	NDA	70	85	100	150	NDA	70	100	150
Arsenic	mg/L	NDA	0.02	0.02	0.04	0.08	NDA	0.02	0.04	0.08
Barium	mg/L	NDA	1.5	1.5	6	8	NDA	1.5	2	8
Cadmium	mg/L	NDA	0.006	0.006	0.01	0.02	NDA	0.006	0.01	0.02
Chromium as Hexavalent Chromium (Cr^{6+})	mg/L	NDA	0.02	0.02	0.02	0.04	NDA	0.1	0.1	0.2

Parameter	Unit	Water Body Classification								
		AA	A	B	C	D	SA	SB	SC	SD
Copper as dissolved Copper	mg/L	NDA	0.04	0.04	0.04	0.08	NDA	0.04	0.04	0.08
Iron	mg/L	NDA	5	5	7.5	35	NDA	7.5	7.5	35
Lead	mg/L	NDA	0.02	0.02	0.1	0.2	NDA	0.02	0.1	0.2
Manganese	mg/L	NDA	2	2	2	20	NDA	4	4	40
Mercury	mg/L	NDA	0.002	0.002	0.004	0.008	NDA	0.002	0.004	0.008
Nickel	mg/L	NDA	0.1	0.2	1	5	NDA	0.2	0.3	1.5
Zinc	mg/L	NDA	4	4	4	8	NDA	0.1	1.5	3
Benzo(a)pyrene	µg/L	NDA	1.5	1.5	3	6	NDA	1.5	3	6
BTEX										
Benzene	mg/L	NDA	0.1	0.1	0.5	5	NDA	0.1	0.5	5
Toluene	mg/L	NDA	3.5	5	20	25	NDA	5	20	25
Ethylbenzene	mg/L	NDA	1.5	1.5	7.5	10	NDA	1	7.5	10
Xylenes	mg/L	NDA	5	5	15	18	NDA	5	15	18
Malathion (Organophosphate)	µg/L	NDA	1	1	3	6	NDA	1	3	6
Oil and Grease	mg/L	NDA	5	5	5	15	NDA	5	10	15
Polychlorinated Biphenyls[i]	µg/L	NDA	<0.1	<0.1	<0.1	<0.1	NDA	<0.1	<0.1	<0.1
Phenol & Phenolic Substances[j]	mg/L	NDA	0.01	0.01	0.5	5	NDA	0.01	0.5	5
Trichloroethylene	mg/L	NDA	0.7	0.7	9	20	NDA	0.7	9	20
Total Organochlorine Pesticides[k]	µg/L	NDA	<0.419	50	50	50	NDA	50	50	50
Aldrin	µg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Chlordane	µg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02

Parameter	Unit	Water Body Classification								
		AA	A	B	C	D	SA	SB	SC	SD
DDT	µg/L	NDA	<0.04	<0.04	<0.04	<0.04	NDA	<0.04	<0.04	<0.04
Dieldrin	µg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Endrin	µg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Heptachlor	µg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Lindane	µg/L	NDA	<0.02	<0.02	<0.02	<0.02	NDA	<0.02	<0.02	<0.02
Methoxychlor	µg/L	NDA	<0.03	<0.03	<0.03	<0.03	NDA	<0.03	<0.03	<0.03
Toxaphene	µg/L	NDA	<0.03	<0.03	<0.03	<0.03	NDA	<0.03	<0.03	<0.03
Fecal Coliform	MPN/100mL	NDA	4	200	400	800	NDA	200	400	800
Total Coliform	MPN/100mL	NDA	3,000	3,000	10,000	15,000	NDA	3,000	10,000	15,000

Notes:

NDA – No Discharge Allowed

(g) GES values are maximum allowable limit.

(h) GES values for temperature refer to the temperature difference of the background value and discharge point. Specific sampling locations shall be established based on the EMB Ambient Water and Effluent Quality Monitoring Manual. Sampling locations for temperature monitoring, established and approved by EMB, prior to this Order shall remain valid.

(i) PCBs include the nine Aroclors and 19 individual PCB congeners described in Section 6.1 of this Order.

(j) Phenols include 2-chlorophenol, 2,4-dichlorophenol, and 2,4,6-trichlorophenol

(k) When monitoring for Class A waters, the individual organochlorine pesticides shall be monitored. For Class B, C, D, SB, SC, and SD, Total Organochlorine Pesticides shall be monitored, which refers to the organochlorine pesticides listed in Table 0-2 plus BHC (α,β,δ,γ), 4,4'DDD, 4,4'DDE, Endosulfan (I, II, and sulfate).

Table 10. Effluent Standards for BOD Applicable to Establishments with Influent BOD of ≥ 3,000 mg/L

Influent BOD (mg/L)	Units	Class C	Class D	Class SC	Class SD
3,000 to <6,500	mg/L	100	150	100	150
6,500 to <10,000	mg/L	200	300	200	300
10,000 to 30,000	mg/L	600	1,000	600	1,000
>30,000	mg/L	900	1,500	900	1,500

SECTION 8.0 Modification of WQG and GES. Any person, both natural and juridical, may request for the modification of the WQG and GES as described in this section.

The request shall include a clear and scientifically valid evidence having a probative value to demonstrate that such modification is consistent with RA 9275 and its Implementing Rules and Regulations. Request for modification shall be submitted to the DENR Secretary.

8.1 Modification of Designated Uses. If the DENR Secretary, through EMB, determines that the request for modification is valid, the DENR shall promulgate such modification in accordance with RA 9275.

8.2 Modification of WQG Values. Any person, both natural and juridical, may request for the modification of a class-specific WQG value. If the DENR Secretary, through EMB, determines that the request is valid, the DENR shall promulgate such modification in accordance with RA 9275. Modification of WQG value of a water segment shall not result in a modification of the designated use of the water segment.

8.3 Modification of Significant Effluent Quality Parameters and GES Values. Any person, both natural and juridical, may request for the modification of the significant effluent quality parameters per sector and/or the GES values. If the DENR Secretary, through the EMB, determines that the request is valid, the DENR shall promulgate such modification in accordance with RA 9275. Provided that, modification of the GES value shall not result to exceedance of the WQG with respect to the designated use of the receiving water body.

In cases where a particular significant parameter is present in an establishment's waste stream but is not listed in Table 8 of this Order; DENR, through the EMB, shall require the establishment to comply with such particular significant parameter.

In cases where a particular significant parameter is not present in an establishment's waste stream, such establishment may request the DENR, through the EMB, the exclusion of such particular significant parameter in its succeeding monitoring regime provided the following conditions are met:

a) Parameter of concern is below the method detection level (MDL) in its effluent for at least 10 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.

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

SECTION 9.0 Periodic Review. Pursuant to Section 19 of RA 9275, this Order shall be reviewed periodically, and amended as necessary.

SECTION 10.0 Grace Period. A grace period of not more than five (5) years may be given, provided that the establishment submits Compliance Action Plan and periodic status of implementation to the DENR on the steps taken for the establishment's compliance schedule within the prescribed grace period. Cases wherein grace period may be given shall be limited to any of the following:

a) Values for the GES have become stringent compared to the values in DAO 1990-35. In such cases, DAO 1990-35 shall apply during the grace period.
b) New significant effluent quality parameters were identified for the sector

Such grace period shall include, but not be limited to, moratorium on the issuance of cease and desist and/or closure order, fines, and other penalties against the establishment's operations.

SECTION 11.0 Prohibitions. The following acts are hereby prohibited:

1) No effluent from any point sources shall be discharged into Class AA and SA waters.

2) No effluent shall cause the quality of the receiving water body to fall below the prescribed WQG in accordance with its classification.

3) No person shall discharge, wholly or partially, untreated or inadequately treated effluent directly into a receiving water body or land or through bypass canals and/or pumps, and other unauthorized means.

4) No person shall use submarine outfall or any underground conveyance as means of discharging effluent except when all of the following conditions are met:

   a. Effluent is compliant to the GES set forth in Section 7.0 of this Order;
   b. The receiving water body is marine water in order to protect the aesthetic requirements of shorelines; and
   c. The needed infrastructure for sampling treated effluent is constructed above ground prior to conveyance.

5) No person shall build, erect, install, or use any equipment, contrivance, or any means the use of which will conceal and/or dilute an effluent and which otherwise constitute a violation of any provisions of these regulations.

6) No establishment or source of water pollution shall be operated without the pollution control facilities or wastewater treatment system in good order or

in proper operation.

7) No establishment or source of water pollution shall be operated at capacities beyond the limits of operation or capability of the wastewater treatment facility to maintain the effluent quality within the standards or pertinent conditions required by law and/or stipulated in the Wastewater Discharge Permit.

8) No new industrial plant with high waste load potential shall discharge into a water body where the dilution or assimilative capacity of the said water body during dry weather condition is insufficient to maintain its prescribed WQG according to its classification.

SECTION 12.0 Fines, Damages, and Penalties. Any person, both natural and juridical, found violating or failing to comply with any Order or Decision of the Department and/or the Pollution Adjudication Board or any provision of this Order, shall be liable under Section 28 of RA 9275.

SECTION 13.0 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 14.0 Repealing Clause. The Rules and Regulations of the National Pollution Control Commission (1978), 1982 Effluent Regulations, and DENR Administrative Orders 1990-34 and 1997-23 are hereby repealed; while DENR Administrative Order 1990-35 is modified accordingly. All other orders, issuances, rules and regulations, or parts thereof inconsistent with this Order are hereby amended, modified, or repealed accordingly.

SECTION 15.0 Effectivity. This Order shall take effect fifteen (15) days after its publication in a newspaper of general circulation and upon acknowledgement of receipt of a copy hereof by the Office of the National Administrative Register.

RAMON J.P. PAJE
Secretary

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
SENR043096

Recommending Approval:

ATTY. JUAN MIGUEL T. CUNA
Assistant Secretary
and concurrent EMB Director

PUBLICATION : MALAYA
MAY 30,2016

REGISTERED : UP LAW CENTER
JUNE 2,2016

Department of Environment and Natural Resources
Environmental Management Bureau

Reference No:
(to be filled up by DENR only)

GENERAL INFORMATION SHEET

Name of the Establishment/Facility	Benguet State University		
Establishment/Facility Address (NOT the company of head office)	Street # & Street Name: Km. 5, BSU Compound Barangay: Barangay Betag City/Municipality: La Trinidad Province: Benguet		
Name of Owner/Company	Government/ State University		
Address (if address is not the same as previous address)	Street # & Street Name: (same as above) Barangay: (same as above) City/Municipality: (same as above) Province: (same as above)		
Phone Number	+63.74.422.2176	Fax Number	+63.74.422.2281
e-mail address	refer to: http://www.bsu.edu.ph/contact		
Type of Business/ Industry Classification	Philippine Standard Industry Classification Code No. 85401 Philippine Standard Industry Descriptor: Public Higher Education		
Responsible Officer/s:	CEO/President. Dr Felipe Salaing Comila Tel #: +63.74.422.2281 Fax #: +63.74.422.2281 e-mail address: president@bsu.edu.ph Plant Manager: N/A Tel #: N/A Fax #: N/A e-mail address: N/A		
Managing Head	Name. Dr. Aurea Marie M. Sandoval Tel #: N/A Fax #: N/A e-mail address: qaa.office@bsu.edu.ph		
Over all Pollution Control Officer	Name: Mr. Jason M. Leung Tel #: N/A Fax #: N/A e-mail address: j.leung@bsu.edu.ph		
Pollution Control Officer, La Trinidad Campus	Name: Dr. Elizabeth T. Dom-ogen Tel #: N/A Fax #: N/A e-mail address: e.dom-ogen@bsu.edu.ph		
Legal Classification	☐ single proprietorship ☐ private domestic corporation ☐ Multi-national	☐ partnership ☐ government corporation ■ State University	

We hereby certify that the above information are true and correct.

Dr. Felipe Salaing Comila
President
Benguet State University

Dr. Aurea Marie M. Sandoval
Managing Head
Benguet State University

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Department of Environment and Natural Resources
Environmental Management Bureau

2022 1ST QUARTERLY SELF-MONITORING REPORT

MODULE 1: GENERAL INFORMATION

Name of the Plant	Benguet State University

Benguet State University (BSU) was established in 1916 and was formerly known as Trinidad Farm School. The University consists of three campuses at present: the La Trinidad campus is sprawled on a 605.78 hectare-land at the heart of La Trinidad, the capital town of Benguet Province; the Buguias Campus is 81 kilometers away from La Trinidad Campus while Bokod Campus is 51 kilometers away. Its geographical coordinates are 16°27'19.7"N 129°35'24.4"E.

BSU currently has a total of 345 employees that comprise the teaching and non-teaching personnel. It is an academic institution and offers both graduate and undergraduate programs.

(use additional sheet/s if necessary)

DENR Permits/Licenses/Clearances

Environmental Laws	Permits		Date of Issue	Expiry Date
P.D. 984	A/C No.	N/A	N/A	N/A
	PO No. DISCHARGE PERMIT NO.	Application under process	N/A	N/A
PD 1586	ECC 1	CAR-2017-0063	11-17-2017	N/A
RA 6969	DENR Registry ID ID/HW Generator's ID	GR-CAR-11-00465	06-06-2018	N/A
	CCO Registry	CCO-PCB-RCAR-BEN-52	07-05-2018	N/A
	Importer Clearance No	N/A	N/A	N/A
	Permit to Transport	N/A	N/A	N/A
RA 8749	A/C No.	N/A	N/A	N/A
	PO No.	N/A	N/A	N/A

Operation

	Operating hours/day	Operating days/week	# of shift/day
Average	8	5	1
Maximum	12	7	1

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Operation/Production/Capacity:

Average Daily Production Output	N/A	Total Output this Quarter	N/A
Total Water Consumption this Quarter (cubic meters)	950 m^3	Total Electric Consumption this Quarter (KwH)	130,000 KwH

Please use additional sheet/s if necessary

MODULE 2: RA 6969

A. CCO Report (please accomplish this section for each chemical/substance)

Common Name/IUPAC/CAS Index Name. N/A
CAS No.: N/A
Trade Name: N/A

For importers only:

Quantity Requested	Import Clearance No.	Date of Arrival	Quantity Received*	Port of Entry	Country of Origin	Country of Manufacture
N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Quantity Requested (annual)	N/A		Total Quantity Received (annual)		N/A	

* attach copy/s of Bill of Lading

For distributors (importers/non-importers)

Name of Client	License No.	Quantity	Date of Distribution
N/A	N/A	N/A	N/A
Total Quantity Distributed			N/A

For non-importer users:

Name of Distributor	Quantity	Date of Purchase
N/A	N/A	N/A
Total Quantity Purchased from Distributor		

For producers

Average Daily Production Output	N/A	Total Output this Quarter	N/A
Quantity of Stock Inventory (Start of Quarter)	N/A	Quantity of Stock Inventory (End of Quarter)	N/A
Name of Buyer		Quantity	Date of Purchase
N/A		N/A	N/A
Total Quantity Sold			N/A

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Used in Production (please fill up only if chemical/substance is not main product)

Average Daily Production Output	N/A	Total Output this Quarter	N/A
Average Quantity Used per month	N/A	Total Quantity Used this Quarter	N/A
Describe any changes in Production/Process/Operations N/A			

Stock Inventory/Waste Chemical Generated:

Average Quantity of Waste Chemical Generated per month	N/A	Total Quantity of Waste Chemical Generated this Quarter	N/A
Quantity of Stock Inventory (Start of Quarter)	N/A	Quantity of Stock Inventory (End of Quarter)	N/A

Other Information:

Manner of handling hazardous wastes	☐ storage on-site ☐ storage off-site	☐ Treatment on-site ☐ Treatment off-site
Changes in Safety Management System	☐ Yes (please attach copy of revised plan) ☐ No	
Chemical Substitute Plan	☐ Yes (please attach copy if not submitted/included in previous report/s or had been revised) ☐ No	

B. Hazardous Wastes Generator

HW Generation:

HW No.	HW Class	HW Nature	HW Cataloguing	Remaining HW from Previous Report		HW Generated	
				Quantity	Unit	Quantity	Unit
E501	Uranyl Nitrate	Solid	Reactive, Explosive			1	kg
M507	Miscellaneous waste , glass wastes	Solid				25	kg
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Waste Storage, Treatment and Disposal:(Please fill-up one table per HW)

HW Details	HW No,: E501 Qty of HW Treated: 1 Unit: Kilograms TSD Location: On-site
Storage	Name: BSU Department of Biology Laboratory Method: Stored in its original containment bottle, sealed in laboratory cabinet under strict custodial supervision by a certified laboratory technician
Transporter	ID: N/A Name: N/A Date: N/A
Treater	ID: N/A Name: N/A Method: N/A Date: N/A
Disposal	ID: N/A Name: N/A Method: N/A Date: N/A

HW Details	HW No,: M507 Qty of HW Treated: 25 Unit: Kilogram TSD Location: BSU SLS
Storage	Name: N/A Method: N/A
Transporter	ID: N/A Name: N/A Date: N/A
Treater	ID: N/A Name: N/A Method: N/A Date: N/A
Disposal	ID: N/A Name: N/A Method: N/A Date: N/A

On-Site Self Inspection of Storage Area:

Date Conducted	Premises/Area Inspected	Findings & Observations	Corrective Action Taken (if any)
March 21, 2022	BSU campus	There were no significant activities in the university laboratories as classes have all migrated online. Use of chemicals and other laboratory equipment are absent or very minimal. No chemicals were used and no chemical waste generated	No corrective action was necessary.

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C. Hazardous Wastes Treater/Recycler

HW Stored and/or Untreated as of End of Quarter:

HW Number	Wastes Generator	Date of Transport	Transport Permit/Date of Issue	Valid until	Quantity	Type of Storage Container/ # of containers	Time Table for Treatment
1101	BSU	N/A	N/A	N/A	900 Liters	Sealed plastic containers	1 year
M506	BSU	N/A	N/A	N/A	35 Kilos	Storage area of department/ college	1 year
D407	BSU	N/A	N/A	N/A	202	Stacked and bundled/ stored on iron racks with warning and labels	1 year
M501	BSU	N/A	N/A	N/A	48.9 kilos	Sealed in plastic bottles	1 year
M503	BSU	N/A	N/A	N/A	26.3 kilos 29.3	Sealed in boxes, bottles, plastic ampoules and tubes	1 year
D402	BSU	N/A	N/A	N/A	.90	Sealed in its original container. Properly labelled and stored.	1 year
D404	BSU	N/A	N/A	N/A	1.4	Sealed in its original container. Properly labelled and stored.	1 year
E501 1101	BSU	N/A	N/A	N/A	3.5 4118	Sealed in its original container. Properly labelled and stored.	1 year
E502	BSU	N/A	N/A	N/A	.5	Sealed in its original container. Properly labelled and stored.	1 year
E503	BSU	N/A	N/A	N/A	.75	Sealed in its original container. Properly labelled and stored.	1 year

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G704	BSU	N/A	N/A	N/A	350	Sealed in its original container. Properly labelled and stored.	1 year
J201	BSU	N/A	N/A	N/A	141	Sealed in its original container. Properly labelled and stored.	1 year
K303	BSU	N/A	N/A	N/A	13.7	Sealed in its original container. Properly labelled and stored.	1 year
M501	BSU	N/A	N/A	N/A	48.9	Sealed in its original container. Properly labelled and stored.	1 year
M502	BSU	N/A	N/A	N/A	.875	Sealed in its original container. Properly labelled and stored.	1 year
M503 D407 M506 L408 M507	BSU	N/A	N/A	N/A	28.6 11.1 3.5 6.5 35+25 KG	Sealed in its original container. Properly labelled and stored.	1 year

HW Treated and/or Recycled as of End of Quarter:

Type of Wastes	HW Number	Wastes Generator	Date of Transport	Transport Permit/Date of Issue	Quantity	Type of Treatment or Recycling Process	Type & Quantity of Recycled or Treated Product
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Residual Wastes Generated from the Treatment and/or Recycling Operation:

Type of Wastes	HW Number	Process by which the Wastes is Generated	Quantity	Type of Storage Containcr/ # of containers	Disposal Option	Time Table for Disposal
N/A	N/A	N/A	N/A	N/A	N/A	N/A

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MODULE 3: P.D. 984 (Water Pollution)

Water Pollution Data

Domestic wastewater (cubic meters/day)	N/A	Process wastewater (cubic meters/day)	N/A
Cooling water (cubic meters/day)	N/A	Others _____ (cubic meters/day)	N/A
Wash water, equipment (m^3/day)	N/A	Wash water, floor (cubic meters/day)	N/A

Record of Cost of Treatment (Separate entries for separate facilities)

	Month 1	Month 2	Month 3
Person employed, (# of employees)	N/A	N/A	N/A
Person employed, (cost)	N/A	N/A	N/A
Cost of Chemicals used by WTP	N/A	N/A	N/A
Utility Costs of WTP (electricity & water)	N/A	N/A	N/A
Administrative and Overhead Costs	N/A	N/A	N/A
Cost of operating in-house laboratory	N/A	N/A	N/A
New/Additional Investments in WTP (Description)	N/A	N/A	N/A
Cost of New/Add Investments	N/A	N/A	N/A

WTP Discharge Location

Outlet Number	Location of the Outlet	Name of Receiving Water Body
1	N/A	N/A

Detailed Report of Wastewater Characteristics for Conventional Pollutants

Outlet No.								
DATE	Effluent Flow Rate (m^3/day)	BOD (mg/L)	TSS (mg/L)	Color	pH	Oil & Grease (mg/L)	Temp rise (°C)	(name) / (unit)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Detailed Report of Wastewater Characteristics for Other Pollutants

Outlet No.								
DATE	Effluent Flow Rate (m^3/day)	(name) / (unit)	(name) / (unit)	(name) / (unit)	(name) / (unit)	(name) / (unit)	(name) / (unit)	(name) / (unit)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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MODULE 4: R.A. 8749 (Air Pollution)

Summary of APSE/APCF

Process Equipment	Location	# of hrs of operations
1. N/A	N/A	N/A

Fuel Burning Equipment	Location	Fuel Used	Quantity Consumed	# of hrs of operations
1. N/A	N/A	N/A	N/A	N/A

Pollution Control Facility	Location	# of hrs of operations
1. N/A	N/A	N/A

Cost of Treatment

	Month 1	Month 2	Month 3
Cost of Person employed, (salary)	N/A	N/A	N/A
Total Consumption of Water (cubic meters)	N/A	N/A	N/A
Total Cost of chemicals used (e.g., activated carbon, $KMnO_4$)	N/A	N/A	N/A
Total Consumption of Electricity (KwH)	N/A	N/A	N/A
Administrative and Overhead Costs	N/A	N/A	N/A
Cost of operating in-house laboratory, if any	N/A	N/A	N/A
Improvement or modification, if any. (Description)	N/A	N/A	N/A
Cost of improvement of modification	N/A	N/A	N/A

Detailed Report of Air Emission Characteristics

Description/Location of PCF								
DATE	Flow Rate (Ncm/day)	CO (mg/Ncm)	NO_x (mg/Ncm)	Particulates (mg/Ncm)	_____ (name) (mg/Ncm)	_____ (name) (mg/Ncm)	_____ (name) (mg/Ncm)	_____ (name) (mg/Ncm)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Please fill-up/accomplish separate form/s for other PCF/s.
Please use additional sheet/s if necessary.

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MODULE 5: P.D. 1586

Ambient Air Quality Monitoring (if required as part of ECC conditions)

Description/Location of Monitoring Station								
DATE	Noise Level (dB)	CO (mg/Ncm)	NO_x (mg/Ncm)	Particulates (mg/Ncm)	_____ (name) (mg/Ncm)	_____ (name) (mg/Ncm)	_____ (name) (mg/Ncm)	_____ (name) (mg/Ncm)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

(Please accomplish one table per monitoring station

Ambient Water Quality Monitoring (if required as part of ECC conditions)

Description/Location of Sampling Station								
DATE	_____ (name) _____ (unit)	_____ (name) _____ (unit)	_____ (name) _____ (unit)	_____ (name) _____ (unit)	_____ (name) _____ (unit)	_____ (name) _____ (unit)	_____ (name) _____ (unit)	_____ (name) _____ (unit)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

(Please accomplish one table per sampling station.)

Other ECC Conditions

ECC Condition/s	Status of Compliance		Actions Taken
	Yes	No	
1. Strict supervision of project implementation by competent personnel to ensure that standards and requirements of sound engineering, safety and health practices are strictly followed.	✓		
2. Employ appropriate erosion control and river bank protection measures to ensure that adjacent property are protected.	✓		
3. Undertake tree planting of appropriate/ indigenous tree species along right of way in support of government programs.	✓		
4. Compliance with legal requirements pursuant to RA 6969, RA 8749, RA 9003 and RA 9275 shall be secured whenever possible	✓		
5. Regularly secure permit(s)/ clearances relative to the project implementation as required by other concerned agencies.	✓		
6. Allow entry of EMB-CAR personnel into the project site at all times to conduct monitoring and to validate project's compliance with ECC conditions.	✓		
7. Implement any undertaking which may be imposed by DENR-CAR as a result of Technical Conference/s relative to environmental issues.	✓		
8. Aggregates and other construction materials including formworks shall be sourced from legal sources only.	✓		
9. Preservation of trees inside the property shall be instituted as an essential component of development	✓		
10. Any transfer of proprietorship carries the same conditions and restriction in this ECC for which a written notification to the EMB-CAR shall be made by the transferee within 15 days.	✓		

Please use additional sheet/s if necessary.

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Environmental Management Plan/Program

Enhancement/Mitigation Measures	Status of Implementation		Actions Taken
	Yes	No	
1. N/A			

Please use additional sheet/s if necessary.

Solid Waste Characterization/Information:

Average Quantity of Solid Wastes Generated per month	80 Kilograms	Total Quantity of Solid Wastes Generated this Quarter	300 Kilograms
Average Quantity of Solid Wastes Collected per month	60 kilograms	Total Quantity of Solid Wastes Collected this Quarter	300 kilograms
Entity in charge of collecting solid wastes	Municipal garbage collectors		
Brief Description of Solid Waste Management Plan (e.g., waste reduction, segregation, recycling)	Each department adopts their own segregation and recycling programs. Custodial services then collects and segregates wastes from each department or college in designated sites on campus. All remaining recyclables are separated for collection and the rest are collected by the municipal garbage collectors.		

Categorize
- recyclable
- biodegradable
- residual

MODULE 6: OTHERS

Accidents & Emergency Records

Date	Area/Location	Findings and Observation	Actions Taken	Remarks
N/A	N/A	N/A	N/A	N/A

Personnel/Staff Training

Date Conducted	Course/Training Description	# of Personnel Trained
October 21-25, 2019	PCO Training	1
February 22-26, 2021	PCO Training	3
March 2021	PCO Training	4
November 08-12,2021	PCO Training	5

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I hereby certify that the above information are true and correct.

Done this 20 APR 2022, in LA TRINIDAD, BENGUET.

Dr. Felipe Salaing Comila
President
Benguet State University

Elizabeth Telcagan Dom-ogen
Designated Pollution Control Officer
(For Accreditation)

Jason Miguel Leung
Designated Over all Pollution Control Officer
(For Accreditation)

Aurea Marie Mioten Sandoval
Designated and Trained Managing Head

SUBSCRIBED AND SWORN to before me, a Notary Public, this APR 20 2022

LA TRINIDAD, BENGUET

by affiants who exhibited to me a competent evidence of their identities as follows :

Name	Competent Evidence of Identity	Validity (if any)
Felipe Salaing Comila	0101169, BSU (Gov't employee ID)	
Aurea Marie M. Sandoval	S0017878A, DFA Manila (Passport)	November 8, 2019
Elizabeth Dom-ogen	P1498255B, DFA Baguio (Passport)	April 23, 2019
Jason M. Leung	P444384B, DFA Baguio (Passport)	January 20, 202

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Book No. : XLII;
Series of 2022

ALLAN C. SACPA
Notary Public for and in the Province of Benguet
My Commission expires on 31 December 2022
NC No. 21F-NC-0548
Attorney's Roll No. 59107 04-15-11 Manila
PTR No. 7019228 01-03-2022 Benguet Province
Lifetime Member No. 011604 12-12-12 Baguio-Benguet Chapter
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