

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

NINETEENTH CONGRESS
Second Regular Session

HOUSE BILL NO. 9579



Introduced by Representative **CARLITO S. MARQUEZ**

EXPLANATORY NOTE

Chemical engineers have a critical role to play in the country's development in the 21st century. They are deeply involved in the design, synthesis, processing, and manufacturing of emerging materials. They are instrumental in the acceleration of innovation, that encompasses in various sectors such as health, energy, cosmetics, industry and business, as well as research. Noting the ubiquitous existence of chemistry and its processes, chemical engineers ensure the efficiency and safety, and evaluate product and material designs.

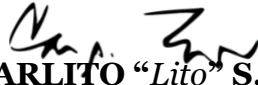
In the 4th Industrial Revolution that we are in today, the government must ensure that our Filipino chemical engineers remain competitive in the national and global scale. They are both innovators and problem-solvers because of their skills in the utilization and development of chemical process simulations, prototype building, and management that are necessary in manufacturing industries. They work to develop technologies that help address most, if not all, global challenges of this time.

In the Philippines, the Chemical Engineering Law of 2014 (Republic Act 9297) was enacted on 13 May 2004 to repeal Republic Act No. 318 and to further expand the scope of practice for chemical engineers in the Philippines. This also includes the creation and composition of the Board of Chemical Engineering, under the Professional Regulatory Commission.

However, there have been policy gaps observed in its implementation. Among the many observations, very few industries hire licensed chemical engineers that could have prevented environmental violations and unsafe practices in the industrial facilities. The lack of guidance and expertise from chemical engineers resulted in inadequate safety protocols, in which negative externalities could elicit harm to the general public. This could be heavily prevented if we put stricter policies in the implementation of chemical engineering laws and regulations.

The current law must be repealed for our laws to be realigned with international standards. This includes the adoption of outcomes-based engineering education parameters which highlight the skills and attributes acquired by engineers, as per the Washington Accord¹. Moreover, the regulation of chemical engineering education should be reviewed, in the interest of national development, public safety and environmental sustainability.

In view of the foregoing, the approval of this bill is urgently sought.


ENGR. CARLITO “Lito” S. MARQUEZ
Chairman, Ctte on Science and Technology

¹ The Washington Accord is a multi-lateral agreement among bodies responsible for the accreditation or recognition of tertiary-level engineering degree programs in each of the countries or territories where the bodies operate. (<https://ptc.org.ph>)

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**AN ACT ESTABLISHING
THE COMPREHENSIVE CHEMICAL ENGINEERING LAW**

Be it enacted by the Senate and the House of Representatives of the Philippines in Congress assembled:

**ARTICLE I
TITLE, STATEMENT OF POLICY, DEFINITION OF
TERMS, AND SCOPE OF PRACTICE**

SECTION. 1. Title. This Act shall be known as the “*Comprehensive Chemical Engineering Act.*”

SEC. 2. Statement of Policy. - It is hereby declared the policy of the State to advance, supervise, and regulate the practice of Chemical Engineering with a strong emphasis on public safety, environmental protection, and sustainable practices, while embracing a complete circular economy approach. This policy encompasses all stages of project conceptualization, design, and national development, establishing an ecosystem that fosters innovation and value creation. It also ensures that chemical engineering education integrates internationally recognized skills and attributes, while offering career progression and specialization opportunities to foster competitiveness. Furthermore, the policy prioritizes Filipino Chemical Engineers in the practice of the profession within the Philippines.

SEC. 3. Definition of Terms. - As used in this Act:

- a) *Accredited Integrated Professional Organization*, also known as *AIPO*, refers to the professional association of all chemical engineers in the Philippines, duly recognized and accredited by the Professional Regulation Commission;
- b) *(Bio)Chemically Reactive Systems* refers to the systems that involve chemical, biological, and biochemical reactions, or both, and processes which can result in the formation or breaking of chemical bonds resulting to conversion of organic compounds, catalyzed by enzymes and use of microorganisms, into useful products and energy, or a combination of both;

- 1 c) *Certificate of Recognition* refers to the certificate issued by the Board of
2 Chemical Engineering in recognition for advance studies and research and
3 accomplishments in Chemical Engineering;
- 4 d) *Certificate of Industrial Worthiness* refers to a document issued by a
5 certifying professional chemical engineer after an annual industrial
6 inspection and with favorable technical findings;
- 7 e) *Certifying Professional Chemical Engineer* refers to a professional
8 chemical engineer who is at least Senior Level Chemical Engineer as listed
9 in the chemical engineering register; jointly authorized by the LGU
10 Engineer's Office and the local chapter of the AIPO to conduct industrial
11 inspection and to issue Certificate of Industrial Worthiness;
- 12 f) *Chemical Engineering* refers to a discipline at the interface of molecular
13 sciences and engineering closely linked with the fundamental subjects of
14 chemistry, biology, mathematics, physics and the application of
15 computational science and collaborative with other engineering disciplines
16 to design equipment, systems, and processes, to operate an industrial plant,
17 and manufacture products.
- 18 g) *Chemical Engineering Specialist* refers to an advanced qualification for
19 Chemical Engineers in accordance with the specified requirements of the
20 Philippine Qualifications Framework. The Chemical Engineering Specialist
21 demonstrates a sufficient depth of expertise in a particular practice area;
- 22 h) *Chemical Engineering Technologist (ChET)* refers to a qualification,
23 following any universally acceptable international accords, qualification
24 standards, related assessments, which can be availed by a holder of a
25 Bachelor of Engineering Technology (Chemical Engineering) or has
26 completed at least 36 units of the professional courses of a Bachelor of
27 Science in Chemical Engineering program, duly registered by the
28 Professional Regulation Commission and duly endorsed by the AIPO. The
29 person may be engaged in performing engineering functions in support of
30 the Professional Chemical Engineers' requirements. The person shall
31 employ established engineering methods, techniques, tools, testing, and
32 resources within the engineering technology domain;
- 33 i) *Chemical Process Technician (CPTech)* refers to a qualification, following
34 any universally acceptable international accords, qualification standards,
35 related assessments, which can be availed by a person who has completed
36 at least 18 units of the professional courses of a Bachelor of Engineering
37 Technology (Chemical Engineering) program duly registered by the TESDA
38 and duly endorsed by the AIPO. The CPTech is skillfully qualified and
39 certified to perform functions related to process equipment monitoring and
40 operation and can apply established practices and procedures related to

- 1 production in an industrial plant or as laboratory technician for Chemical
2 Engineering Laboratory in an academic institution and/or industrial plant;
- 3 j) *Chemical Engineering and Process Laboratory* refers to any facility or
4 installation in an industrial plant or academic institution that conducts
5 bench-scale (prototypes), pilot-scale, experimentation or measurement, or
6 both, data gathering, process control, or testing of process parameters, or
7 both, and material properties related to separation processes, transport
8 processes or the chemical transformation of raw materials to in-process to
9 finished products, or both;
- 10 k) *Chemical Reaction Engineering* (CRE) refers to the (bio)chemically
11 reactive systems of engineering significance and focuses on the
12 understanding, design, optimization, and advancement of processes that
13 involve chemical reactions and (bio)chemically reactive systems such
14 reaction kinetics, thermodynamics, transport phenomena processes,
15 reactor design and operation, catalysis, and their applicability regardless of
16 scale.
- 17 l) *Digital Twin* refers to a virtual representation of an object or system that
18 spans its lifecycle, updated from real-time data, and uses simulation,
19 machine learning, and reasoning to help in decision-making;
- 20 m) *Engineering and Construction Firms* refer to establishments which offer
21 services on engineering design, procurement of equipment and construction
22 materials, and construction of industrial plants;
- 23 n) *Establishment* refers to any business enterprise, national government
24 agencies, local government units (LGUs), non-profit organizations,
25 academic institutions, and research centers engaged in activities involving
26 Chemical Engineering Practice;
- 27 o) *Industrial Plant* refers to any plant or facility in which unit processes or unit
28 operations, or both, are involved, including the related pollution control and
29 abatement processes and operations. This shall include all types of
30 manufacture, storage, distribution, and management of industrial or
31 consumer products and goods, as well as industrial or waste treatment
32 facilities;
- 33 p) *Industrial Safety* refers to the management of all operations and events
34 within an industrial plant to protect its employees and assets by minimizing
35 or eliminating hazards, accidents, and near misses;
- 36 q) *Industrial Worthiness* encompasses a range of critical factors that is
37 imperative for industries to prioritize to ensure responsible and ethical
38 industrial practices. These factors include technical compliance,
39 sustainability, safety, and environmental responsibility of industrial plant
40 processes and operations. “Technical compliance” refers to adherence to

globally accepted chemical engineering and industrial practices, as well as relevant international and local standards and codes, along with legal requirements including all laws, rules and regulations affecting the process operations.

- r) *Nuclear Reactive Systems* refer to systems, that uses nuclear reactions to generate energy for producing electricity or for other useful functions and purposes intended for medical applications, scientific research, safety, policy-making, and national defense. It is a system that involves a nuclear reactor, radioactive material, nuclear fuel and its isotopes, and other components that must be designed and operated based on chemical and nuclear engineering principles applied in all areas of operations of the nuclear reactive system;
- s) *Practice of Chemical Engineering* refers to the performance of activities within the scope of practice and areas of specialization of Chemical Engineering Profession, and which includes the privilege of the designation and title of Professional Chemical Engineer (PChE) attached to the Professional Chemical Engineer's name;
- t) *Process* refers to a series of steps or actions taken to achieve a particular purpose;
- u) *Process Instrumentation* refers to the study, development and implementation of tools, equipment, mechanisms, and machinery for a certain process to provide technical means of process control and performance;
- v) *Process Control* refers to any unit process, unit operation or design employed to achieve prevention, or both, reduction or elimination of pollutants, or both and mitigation of their harmful impact on health and the environment;
- w) *Process Equipment* refers to equipment where unit process or unit operation takes place;
- x) *Production Personnel* refers to engineers, technologists, technicians, and other related technical people employed by establishments operating industrial plants and pollution control and abatement facilities;
- y) *Professional Chemical Engineer (PChE)*, following Washington Accord or any universally acceptable international accord, qualification standards,, related assessments and Graduate Attributes, is a natural person or a hybrid of natural person and Artificial Intelligence (AI) or Robots and Digital Twin, with the natural person being a duly registered professional who is a holder of a valid physical or digital Certificate of Registration and a Professional Identification Card, and a tamper proof digital seal issued by the Board of Chemical Engineering and the Professional Regulation Commission;

certified by the local chapter of the Accredited Integrated Professional Organization (AIPO) as a member of “Good Standing”; and holder of a valid Professional Tax Regulation (PTR). The use of AI and Robots or Avatars shall be registered together with the application or renewal of the natural person of one’s Chemical Engineering License. The natural person shall be responsible for providing the signature and digital seal for the outputs created by AI or Robots, or Digital Twin. The AI, Robots, and Digital Twin by themselves shall not be considered Professional Chemical Engineers for the purpose of ensuring public safety by preventing its misuse by anonymous and unscrupulous individuals or groups of individuals;

z) *Professional Chemical Engineering Subjects* shall refer to any of the following and similar chemical engineering topics: chemical engineering thermodynamics; chemical engineering calculations, physical principles and chemical principles; industrial processes; momentum transfer; heat transfer; mass transfer; separation processes; particle technology, chemical reaction engineering; environmental engineering; process equipment and plant design; process dynamics and control; chemical process safety; biochemical, biomolecular, and bio-engineering; special topics on emerging technologies; chemical engineering research; chemical engineering entrepreneurship, and internship;

aa) *Professional Fee* refers to a fee paid by any establishment to a professional chemical engineer who rendered chemical engineering professional services;

bb) *Risk Management* refers to the identification, evaluation, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability or impact of unfortunate events or to maximize the realization of opportunities. This includes technical, operational, process, and industrial risk;

cc) *Senior Level Chemical Engineer* refers to a professional in the field of chemical engineering, with a minimum of seven (7) years of professional experience, complied with the standards set forth by a nationally recognized chemical engineering register

dd) *Systems Thinking* refers to the holistic approach to analysis that focuses on the way that a system's constituent parts interrelate and how systems work overtime and within the context of larger systems;

ee) *Unit Process* refers to the chemical change, the equipment, and control system involved in the manufacture and production of any industrial or consumer products either in solid, liquid, gaseous, or plasma form or the treatment of industrial, chemical, water, and wastewater which includes, the use and application of chemical treatment technologies; biological (use

of micro-organism), bioengineered or biochemical technologies; nanoparticles and nanotechnology-related water treatment technologies; enzymes; catalysts; polymers (biopolymers and synthetic polymers); nuclear level operations; chromatography and other products described under Production or Manufacturing Operation, or both. It also refers to any chemical change, including its equipment and control system that is unique to a specific industry as mentioned in Production or Manufacturing Operation, or both, or from the state-of-the-art development of emerging technologies which may include the assistance or use of Artificial intelligence (AI) or Programming Languages;

ff) *Unit Operation* refers to any physical change or operation, including its equipment and controlsystems, by which the desired step in any industrial process in an industrial plant or facility is conducted, controlled, monitored, and optimized. They may be combined with other unit operations or unit processes, or both, to deliver sustainable, practical, cost-effective, and environment-friendly products, which includes the following:

- 1) *Storage, transport, and handling of gas, liquid, or solids, or both*, which includes, chemicals of any type, industrial gases or gaseous fuels, solid fuels be it synthetic or organic; granulates or granular solids, Newtonian or non-Newtonian fluids including pastes, slurries, and among others; raw materials for production of agricultural products, food and beverage, cement, energy-related industries, semi-conductor, and any other types of products as described in Production or Manufacturing Operation, or both;
- 2) *Heat transfer* which involves conduction, convection, radiation, or phase change which includes evaporation, sublimation, condensation, melting, combustion, pyrolysis, incineration, pasteurization, sterilization, cooling, freezing, liquefaction, and other new emerging heat transfer technologies;
- 3) *Mass Transfer* which includes, distillation, adsorption, absorption, humidification, extraction, leaching, mixing, homogenization, packaging, migration, diffusion, dispersion, and other new emerging mass transfer technologies;
- 4) *Separation Processes* which includes solid-liquid, gas-solid, liquid-gas extraction in any industrial plant; screening, crystallization, fluidization, molecular sieving, coalescing, filtration which includes the use of osmosis, carbon filtration, any membrane separation, desalination and any other type of separation, including the use of chemicals, bio-chemicals, enzymes, catalysts, nanoparticles and nanotechnology in water, waste, wastewater treatment; polymer separation, biopolymer, bioengineered or biochemical separation technologies; and other new emerging separation technologies;
- 5) *Solid Processing and Particle Technology* shall include size reduction, size

1 enlargement, screening, crushing, pulverizing, solid mixing, flotation, and
2 other new emerging solid processing and particle technologies; and
3 6) *Process Measurement* which measures dimensions, using process
4 instrumentation, such as, but not limited to, pressure in process pipes or
5 vessels, fluid level, fluid flow rate or velocity, temperature, product &
6 manufacturing analytics and other new emerging process measurement
7 technologies;
8 gg) *Utility Concessionaire* refers to the producers and distributors of utilities such
9 as water and electricity;
10 hh) *Waste Treatment Facility* refers to any installation, building or structure
11 engaged in the handling, treatment, storage, and disposal of solid, liquid, or
12 gaseous wastes from industrial processes; and
13 ii) *Waste Treatment Process* refers to the operations involved in achieving physical,
14 chemical, and biological change in collected wastes so as to attain waste reduction,
15 minimization or elimination, or both.

16 **SEC. 4. Scope of Practice.** – The practice of Professional Chemical Engineers
17 shall include the following:

18 a) *Technical Consulting.* Provides professional, independent advisory, and
19 technical solutions to industrial plants, government organizations, non-
20 government organizations, and multilateral institutions appertaining to
21 problems which require the application of chemical engineering concepts and
22 theories. It shall include the process improvement and optimization, process
23 and operational safety, raw materials treatment and processing, product
24 realization, by-products generation, logistics and supply chain enhancement,
25 water and wastewater treatment and disposal system management, quality and
26 environmental system management, standard operating procedure
27 development, and emerging technologies adoption and implementation.
28 Moreover, the following services shall be considered as consulting services:

- 29 1. *Process Analysis and Solution* – Provides independent expert advice
30 and solutions on how to proceed with various technological
31 development, transfer, innovation, and upgrade;
- 32 2. *Preparation of Feasibility Studies and Plant Design* – Evaluation and
33 analysis of the organizational, processes, systems, technical, geospatial,
34 market, and financial viability of constructing industrial plants, piloting,
35 and scaling up and expansion of production processes. It also includes
36 engineering and operations audit and process streamlining;
- 37 3. *Estimation or Valuation, or both* – Determination of capital investments
38 for constructing Industrial Plants, or their Units, or a particular
39 equipment including material and installation costs. It also includes
40 value engineering, cost minimization, cost control, cost forecasting, and

1 risk analysis. In addition, it pertains to the modelling of the size of
2 natural resources determining the value of the reserve for the clients'
3 accounting books, and determining the net book value of Industrial
4 Plants except Metallurgical Plants or equipment for its intended sale; and

5 4. *Planning* – This pertains to project planning to consulting engagement/s.
6 Project planning refers to a systematic analysis of identifying and listing
7 things that must be undertaken to achieve the project's objectives,
8 testing and validating the plan and delivering it to end user/s. Planning
9 includes the identification of risk and opportunities related to the plant
10 operations. Rendering of consulting services requires the Professional
11 Chemical Engineer to provide seal and signature on the appropriate
12 pages of the documents of the documented outputs.

13 b) *Investigation*. Any inquiry, examination or study that involves chemical
14 engineering concepts and theories, undertaken for the determination of the
15 causative factors of the happening of any adverse event taking place in any
16 facility, establishment or that which involves any commission or omission
17 of acts which endangers the life, liberty, and property of a person, towards
18 the determination of liability or obligation under any law, rules, and
19 regulations. that took place, inside or outside the vicinity of an Industrial
20 Plant or any facility. It utilizes science, technology, law, and techniques,
21 sustainability engineering and technologies; or chemical engineering
22 knowledge, or both, principles, and professional skills, for the
23 determination, discovery, and verification of facts to arrive at a valid,
24 logical, or sound conclusion for any administrative, civil, criminal or any
25 related cases. This shall also include investigating any persons, materials,
26 substances, products, by-products, raw materials handling and storage,
27 industrial and non-industrial waste handling, storage, disposal, and
28 compliance, structures, components, equipment, industrial and non-
29 industrial processes, and systems that fail to attain design capacities,
30 efficiency, mandatory industrial process compliance, inspection and
31 worthiness, sound environmental and safety requirements.

32 This shall also include any activity, undertaking, engagement or technique,
33 or both, related to investigation, to be performed in a chemical engineering
34 laboratory or facility such as unit operations laboratory, unit process
35 laboratory, quality assurance laboratory, research and development
36 laboratory, forensic evidence testing laboratory, pilot plant and other
37 related laboratories, which uses chemical engineering concepts and
38 theories.

39 Industrial Plant Laboratories which perform tests and analyses involving
40 unit operations equipment, unit processes, or pollution abatement, or both

1 shall be classified as Chemical Engineering Laboratory, hence, it shall be
2 operated, supervised, or managed by a Professional Chemical Engineer, or
3 both. The tests and analyses performed in Chemical Engineering
4 Laboratories shall be performed by a Professional Chemical Engineer and
5 shall affix the seal and signature on the Laboratory Report.

6 Chemical analyses can be conducted by a Professional Chemical Engineer
7 so long as it is related or connected to the function and professional practice
8 as Chemical Engineer.

9 Any activity performed outside of the aforementioned laboratories, in-field
10 or mobile, is considered Chemical Engineering Practice, hence warrants a
11 signature and seal of a registered Professional Chemical Engineer on every
12 page of the Laboratory Report. This includes expert witnessing which is the
13 process of providing specialized knowledge, theories, and applications of
14 chemical engineering in the form of expert testimony and opinions in a legal
15 proceeding. This serves the purpose of assisting the court or other decision-
16 making bodies in comprehending complex or technical matters within the
17 realm of chemical engineering.

18 c) *Designing. Process, Plant, and Equipment Design* – Any act to conceptualize
19 and simulate processes, size process equipment and pipelines, strategically
20 design the control systems, consider process and occupational safety
21 requirements and layers of protection to the design of an industrial plant or
22 related facilities, or both. This function also includes Hazard and Operability
23 Studies, Design Gap Analysis, and Reliability, Availability, and Maintainability
24 Studies. In the conduct of these activities, the latest version of design tools and
25 technologies and other similar application software may be used. The
26 Professional Chemical Engineer shall affix one's signature and seal on every
27 page of the output from these activities.

28 In addition, the plan for pollution control and abatement facilities, such as
29 wastewater treatment facility, and treatment, disposal of toxic and hazardous
30 wastes, and other related technologies and devices which are part of building
31 permit requirements, shall be signed and sealed by a Professional Chemical
32 Engineer. The City or Municipal Engineering Office shall include this in the
33 building permit requirements.

34 The output of the design process involves Process and Product Specifications,
35 which includes technical specifications of unit processes and unit operations.
36 Hence, its preparation is the responsibility of the Professional Chemical
37 Engineer.

38 *Preparation of Technical Specifications and Parameters* – Any act or process
39 of making description or identification to provide clear instructions on project
40 intent, performance, and construction of an Industrial Plant, Process

Equipment, and Chemical Engineering Laboratory. This shall also include the setting of explicit technical standard requirements for material, design, product, processes, systems, or service. The specifications may be set by government agencies, private entities, standard organizations, trade associations, corporations and others referenced by a contract or procurement document. All specifications mentioned above must be referenced and shall mandatorily comply with the Philippine Chemical Engineering Technical Standards and shall be signed and sealed by a Professional Chemical Engineer on each page of the specifications.

This may include product design, which is the process of creating and developing a new product or improving an existing one with the aim of meeting specific customer needs and achieving commercial success.

d) *Supervision of Installation including Monitoring of Construction Activities and Commissioning of Industrial Plants.* Any act or process of administration, management, inspection, direction, control, and overseeing the construction of Industrial Plant related to chemical engineering design requirements in accordance with the approved design and its commissioning to ascertain that the facility functions as intended. It also involves the technical acceptance of equipment supplied at the project site which includes quality control appertaining to the technical specifications and completeness against packing lists. It may also include functions such as progress monitoring constraints and activities, adjusting, when necessary to ensure completion of installation on schedule and within budget or constraints, and accepting or closing the project.

e) *Manufacturing Operation, including Integrated Management Systems and Systems Thinking.* This shall refer to the operation, supervision, and management of production or manufacturing facility, or both of any establishment where Unit Operations, Unit Processes, Chemical Reaction Engineering and a series or combination thereof are involved, including the management of waste and waste disposal and the operation of the pollution control and abatement facilities relating to any production or manufacturing operations or of any Industrial Plant.

This encompasses industrial sectors which have unit operations or unit processes, or both, including food and beverage manufacturing, biotechnology, sugar and sugarcane byproduct manufacturing, packaging products manufacturing, paints, coats and ink manufacturing, glass manufacturing, rubber manufacturing, non-metallic products manufacturing, pulp and paper manufacturing, industrial chemical products manufacturing, industrial gases production, fuels and biofuels production, textile manufacturing, semi-conductor equipment and products manufacturing, petroleum and petrochemical manufacturing, plastics and polymers manufacturing,

1 pharmaceutical and cosmetics manufacturing, agro-industrial and agri-
2 industrial manufacturing and other commercial products manufacturing.

3 The Professional Chemical Engineer shall also perform production planning,
4 optimization, troubleshooting, and process re-engineering in cases where the
5 scope is manageable, including the implementation of integrated management
6 systems to optimize unit operations and unit processes, identify
7 interconnections between them, and address underlying problems.

8 *f) Pilot-Testing.* Refers to the process of conducting small-scale experiments or
9 trials to evaluate and validate the feasibility, performance, and efficiency of a
10 chemical plant, process, or technology before implementing it on a larger scale.
11 It serves as a crucial step in the development, optimization, and
12 commercialization of chemical plants, processes, and equipment.

13 *g) Research and Development.* Any work, activity, and engagement directed
14 towards the discovery, development, introduction, innovation, and
15 improvement of products, services, systems, operations, and processes
16 involving the application of Chemical Engineering concepts and theories. It also
17 pertains to basic research leading to breakthroughs in Chemical Engineering. It
18 can also refer to multi-disciplinary research which involves a substantial
19 application of Chemical Engineering concepts and theories.

20 *h) Quality Assurance.* Plan, execute, and oversee inspection and testing of product
21 to confirm quality and conformance to specifications and deliverables. Assist
22 Production or Manufacturing Operation, or both in tracking, documenting, and
23 reporting quality levels. Analyze and investigate product complaints or reported
24 quality issues to ensure resolution in accordance with company guidelines and
25 external regulatory requirements.

26 *i) Academia.* Teaching, lecturing, reviewing and doing research in an academic
27 environment that involves application and demonstration of chemical
28 engineering principles shall be considered professional chemical engineering
29 practice.

30 **SEC. 5. Career Progression and Areas of Specialization.** –Professional
31 Chemical Engineers shall be engaged in the following areas of specialization:

32 a) *Forensic Investigation.* Any examination, study, inquiry, investigation,
33 consultation, and review involving the application of science, technology,
34 law, forensic principles, and other related techniques in relations to
35 Chemical Engineering knowledge, principles, and professional skills, for the
36 determination, discovery, and verification of facts to arrive at a valid,
37 logical, or sound conclusion for any administrative, civil, criminal or any
38 related cases;

39 b) *Quality Management System.* Develop or update, or both the company
40 procedures to ensure capture, investigation, and proper documentation of

1 complaints. Monitor risk-management procedures and maintain problem
2 logs for identifying and reporting issues to management and product
3 development;

4 c) *Government Regulatory Functions*. The regulation, inspection, and
5 monitoring of compliance of an Industrial Plant to laws, rules and
6 regulations relating to good manufacturing practices, process safety, food
7 safety, pollution control and abatement, including solid wastes and
8 wastewater management, industrial gas emission, and chemical storage,
9 handling, and transport, shall be considered as an area of Chemical
10 Engineering practice. As such, the Department of Environment and Natural
11 Resources, Department of Justice, Department of Public Works and
12 Highways, Department of Trade and Industry, Department of the Interior
13 and Local Government, Department of National Defense, Department of
14 Science and Technology, Department of Foreign Affairs, Department of
15 Agriculture, Department of Energy, Department of Health, Philippine Space
16 Agency, the Local Government Units and other related government
17 agencies are required to hire Chemical Engineers to dispose of the
18 aforementioned regulatory functions.

19 The Certifying Professional Chemical Engineers, as duly authorized by the
20 Board, shall be granted authority to assist the Board to conduct the inspection
21 of Industrial Plants to ensure compliance with regulatory requirements on
22 process and operational safety and waste management as well as on compliance
23 with the Philippine National Standards.

24 d) *Entrepreneurship*. Deals with the commercialization of chemical
25 engineering technologies from its development to incubation, then to
26 mainstream market adoption, sales, and distribution;

27 e) *Corporate Governance*. The Professional Chemical Engineer may assume
28 Board Membership in Utility Concessionaires as well as in establishments,
29 imbued with public interest, where such establishment engages in
30 operations that employs the concepts and theories of chemical engineering.
31 Any Professional Chemical Engineer engaged in Chemical Engineering
32 Entrepreneurship or are assuming directorship in a corporation with chemical
33 engineering-related business, shall be considered as engaged in the practice of
34 chemical engineering.

35 The services of a Professional Chemical Engineer shall also include the
36 preparation of Sustainability Reports of Publicly-listed Companies as required
37 by the Securities and Exchange Commission.

38 f) *Chemical Reaction Engineering and Catalysis (CREC)*. It deals with the
39 (bio)chemically reactive systems of engineering significance and focuses on
40 the understanding, design, optimization, and advancement of processes

1 that involve chemical reactions and (bio)chemically reactive systems such
2 as reaction kinetics, thermodynamics, transport phenomena processes,
3 reactor design and operation, catalysis, and their applicability regardless of
4 scale.

5 g) *Nuclear Processes and Operations*. They refer to activities, within the areas
6 of Chemical Engineering and Chemical Reaction Engineering, performed in
7 the Nuclear Reactive Systems. This shall include nuclear power generation,
8 nuclear fuel cycle, radiation protection, reactor design and operation, fuel
9 processing, nuclear waste treatment and management, nuclear strategies
10 and policy-making, peaceful and military purposes.

11 h) *Nanotechnology*. Refers to the scientific and technological discipline
12 related to chemical engineering that involves manipulating matter at the
13 nanoscale, typically at dimensions of one to 100 nanometers. It
14 encompasses the understanding, design, and control of materials and
15 systems at the nanoscale level.

16 i) *Environmental Engineering and Management*. Application of chemical
17 engineering principles, methodologies, and techniques to solve
18 environmental problems and address sustainability challenges. It involves
19 the design, development, and implementation of processes and
20 technologies that mitigate environmental pollution, promote sustainable
21 practices, and protect human health and the ecosystem. This also includes
22 industrial waste management, pollution control, and other related
23 activities.

24 j) *Sustainability Engineering*. Focuses on the application of chemical
25 engineering principles and practices to promote sustainable and
26 environmentally friendly processes within the chemical industry and other
27 related sectors. It aims to minimize the environmental impact of chemical
28 processes, reduce resource consumption, and develop sustainable
29 alternatives to conventional chemical processes.

30 k) *Biomedical Engineering*. Combines principles of chemical engineering with
31 biomedical sciences and technology to develop innovative solutions for
32 healthcare and medical applications. It focuses on the application of
33 chemical engineering principles, processes, and materials to advance the
34 understanding, diagnosis, treatment, and prevention of diseases.

35 l) *Biochemical Engineering*. Combines principles of biology, chemistry, and
36 engineering to develop processes, technologies, and products related to the
37 production and utilization of biological materials. It focuses on applying
38 engineering principles to understand, manipulate, and optimize biological
39 systems for various applications, including healthcare, pharmaceuticals,
40 agriculture, energy, and environmental sustainability.

- 1 m) *Biomolecular Engineering*. Combines principles of biology, chemistry,
2 physics, and engineering to manipulate and engineer biological molecules
3 and systems for various applications. It focuses on understanding the
4 structure, function, and interactions of biomolecules, such as proteins,
5 nucleic acids, carbohydrates, and lipids, and leveraging that knowledge to
6 design and create new molecules, materials, and technologies.
- 7 n) *Tissue Engineering*. Combines principles from biology, engineering, and
8 medicine to create functional, three-dimensional tissues or organs for
9 medical applications. It aims to develop methods and technologies to repair,
10 replace, or regenerate damaged or diseased tissues, ultimately restoring
11 normal tissue function and improving patient outcomes. This also includes
12 designing and optimizing biomaterials, controlling chemical reactions, and
13 creating suitable microenvironments for cell growth and tissue formation.
- 14 o) *Materials Science and Engineering*. Focuses on understanding the
15 structure, properties, processing, and performance of materials. It involves
16 the study, development and design of new materials, as well as the
17 improvement and optimization of existing materials, to meet specific
18 technological, industrial, and societal needs.
- 19 p) *Corrosion Engineering*. Focuses on understanding and preventing the
20 degradation of materials due to corrosion. This includes the study of the
21 various factors that contribute to corrosion, including environmental
22 conditions, material composition, and electrochemical reactions. It is aimed
23 to develop strategies to mitigate corrosion, extend the lifespan of materials,
24 and ensure the integrity and safety of structures and equipment.
- 25 q) *Energy Engineering and Management*. Application of chemical
26 engineering principles and techniques to address energy-related challenges,
27 optimize energy utilization, and promote sustainable energy practices. It
28 encompasses the design, analysis, and optimization of energy systems and
29 processes, as well as the development and implementation of energy
30 management strategies.
- 31 r) *Metrology*. Performs scientific study and practice of measurement. It
32 involves the development, implementation, and application of
33 measurement techniques, standards, and instruments to ensure accurate
34 and reliable measurements across various fields of science, industry, and
35 commerce. This shall also include calibration of methods, procedure,
36 substances, person, materials, equipment and measuring devices.
- 37 s) *Emerging Technologies* requiring Chemical Engineering Knowledge,
38 Principles and Applications.

39 **SEC. 6. Chemical Engineering Specialists.** – Chemical Engineering
40 Specialists, with qualifications as may be determined by the Board, shall be certified as

1 having specializations or specialties in certain areas of chemical engineering practice.
2 There shall be scope of practice and areas of specializations in chemical engineering that
3 shall be reserved for Chemical Engineering Specialists. For that purpose, the Board shall
4 provide rules and regulations for the qualification, certification, and the scope of practice
5 of the Chemical Engineering Specialists.

6 **SEC. 7. Chemical Engineering Technologist (ChET).** -The Chemical
7 Engineering Technologist shall perform functions related to established engineering
8 methods, techniques, tools, testing, and resources within the technology domain. ChET
9 provides technical support to Professional Chemical Engineers as needed in an industrial
10 plant and other related chemical engineering areas. The ChET shall engage in the
11 technology, equipment and processes used to convert raw materials into consumer
12 products and in other related Chemical Engineering services.

13 **SEC. 8. Chemical Process Technician (CPTech).**- The Chemical Process
14 Technician shall perform functions related to manufacturing equipment monitoring and
15 operation and applies established practices and procedures which may require
16 performance of duties related to production or as laboratory technician for Chemical
17 Engineering Laboratories in industrial plants and academic institutions. The CPTech
18 shall monitor chemical processes and test product quality to ensure that they meet
19 standards and specifications, set-up, operate, and maintain laboratory instruments and
20 equipment, maintain production equipment, and troubleshoot problems.

21 **ARTICLE II**

22 **THE PROFESSIONAL REGULATORY BOARD FOR CHEMICAL** 23 **ENGINEERS**

24 **SEC. 9. Creation of the Professional Regulatory Board for Chemical**
25 **Engineers.** - There is hereby created a Professional Regulatory Board for Chemical
26 Engineers, herein referred to as the Board, under the administrative control and
27 supervision of the Professional Regulation Commission hereinafter called the Commission,
28 shall be composed of a Chairperson and four (4) members appointed by the President of the
29 Philippines as taken from the nominees recommended by the duly Accredited
30 Integrated Professional Organization of Chemical Engineers and short-listed by the
31 Commission.

32 The Accredited Integrated Professional Organization of Chemical Engineers shall
33 recommend three (3) nominees for every vacant position, six (6) months prior to the end
34 of the term. The recommendation and selection of short-listed nominees shall be done for
35 one position at a time.

36 **SEC. 10. Powers and Duties of the Board.** – The powers and duties of the
37 Board shall include the following:

- 38 a) Supervise, regulate and uphold the practice of the chemical engineering
39 profession in the Philippines in accordance with the provisions of this Act;
40 b) Determine the requirements and evaluate the qualifications of the applicants

1 for registration and renewal of license of Professional Chemical Engineer
2 (PChE), Chemical Engineering Technologist (ChET), and Chemical Process
3 Technician (CPTech);

- 4 c) Prescribe the subjects in the licensure examination aligned with the current
5 minimum Bachelor of Science in Chemical Engineering (B.S. Ch.E.) and
6 Bachelor of Engineering Technology (BET-ChE) curriculum standards set by
7 the Commission on Higher Education; determine the syllabi of the subjects and
8 their relative weights; develop examination table of specifications; construct the
9 test questions in the examination; score and rate the examination papers; and
10 submit the examination results to the Commission;
- 11 d) Issue together with the Commission, Certificates of Registration and
12 Professional Identification Card to applicants who have passed the licensure
13 examinations for professional chemical engineers;
- 14 e) Issue together with the Commission, Certificates of Registration and
15 Professional Identification Card to applicants who have been certified as
16 chemical engineering technologists and chemical process technicians;
- 17 f) Issue together with the Commission, licensure examination exemptions,
18 Certificates of Registration and Professional Identification Card to applicants
19 who have graduated from Internationally Accredited B.S. Ch.E. and BET-Ch.E.
20 programs;
- 21 g) Issue special permits to persons admitted to the practice of the profession;
- 22 h) Award Certificate of Recognition for advance studies and research and
23 accomplishments in the chemical engineering profession that contribute to its
24 enrichment;
- 25 i) Oversee the conduct of the Continuing Professional Development programs for
26 Professional Chemical Engineers (PChE), Chemical Engineering Technologist
27 (ChET), and Chemical Process Technician (CPTech);
- 28 j) Conduct on-site inspection, submit an inspection report to the Commission and
29 monitor compliance of industrial plants, facilities, institutions and other
30 entities engaged in the scope of practice and areas of specializations of Chemical
31 Engineering and shall seek the assistance of the Accredited Integrated
32 Professional Organization in order to carry out these functions;
- 33 k) Inquire into the conditions affecting the practice of the Professional
34 Chemical Engineer (PChE), Chemical Engineering Technologist (ChET), and
35 Chemical Process Technician (CPTech) and adopt measures for the
36 enhancement and maintenance of a high professional, ethical and technical
37 standards. Pursuant thereto, the Board may inspect establishments where
38 chemical engineers practice their profession in order to determine and enforce
39 compliance with the provisions of this Act;
- 40 l) Issue Certificates of Compliance to Industrial Plants, facilities and institutions

- engaged in the scope of practice and areas of specializations of Chemical Engineering pursuant to the provisions of this Act;
- m) In coordination with the Commission on Higher Education (CHED), inspect the facilities, faculty, equipment and other aspects directly related to the chemical engineering program of educational institutions and submit a monitoring report to the Commission;
 - n) Adopt a Code of Ethics and a Code of Technical Standards for the practice of chemical engineering;
 - o) Investigate, in accordance with the rules on administrative investigation promulgated by the Commission, violations of this Act and its implementing rules and regulations, the Code of Ethics and the Code of Technical Standards for chemical engineers, administrative policies, orders and issuances promulgated by the Board;
 - p) Issue *subpoena ad testificandum* and *subpoena duces tecum* to secure the attendance of witnesses or the production of documents in connection with any administrative case before the Board;
 - q) Hear and decide administrative cases filed against chemical engineers and firms employing chemical engineers. The hearing shall be presided by the Chairperson or a Member of the Board with the assistance of an Attorney of the Commission. Any decision shall be concurred in by at least a majority of the Board. The decisions of the Board may be appealed to the Commission within fifteen (15) days from notice, otherwise such decisions shall become final and executory;
 - r) Administer oaths in connection with the performance of its functions;
 - s) Adopt an official seal and prescribe the seal of the chemical engineering profession;
 - t) Submit an annual report on the proceedings and accomplishments during the year or recommendations of the Board to the Commission, or both, thirty (30) days after the close of each calendar year; and furnish copies of the same annual report upon request of stakeholders;
 - u) Conduct periodic consultations with the Accredited Integrated Professional Organization of Chemical Engineers and present quarterly accomplishment reports thereto;
 - v) Prosecute or institute criminal action against any violator of this Act or rules and regulations of the Board, or both;
 - w) Prescribe guidelines and criteria on the Continuing Professional Development (CPD) program for Professional Chemical Engineers, Chemical Engineering Technologists, and Chemical Process Technicians in consultation with the Accredited Integrated Professional Organization of Chemical Engineers;
 - x) In case of exigency of services, the Board may avail the professional services of

1 qualified professionalchemical engineers duly recommended by the Accredited
2 Integrated Professional Organizationof Chemical Engineers to serve some of
3 their functions, with due compensation;

4 y) Support and adopt, in partnership with the Accredited Integrated Professional
5 Organization of Chemical Engineers, nationally or internationally recognized
6 Philippine register for chemical engineers, or both;

7 z) Institutionalize technical and specialized skills development; (aa) Recognize
8 chemical engineering specialties and subspecialties; (bb) Adopt the
9 implementing rules and regulations of this Act; and

10 aa) Perform such other functions as may be necessary to implement the provisions
11 ofthis Act.

12 The two (2) members of the Board shall focus on conducting on-site inspections.

13 **SEC. 11. Qualifications of the Board Chairperson and Members.** - At
14 the time of their respective appointments, the members of the Board, including the
15 Chairperson, must be:

16 a) A natural born Filipino citizen and resident of the Philippines;

17 b) At least a holder of a bachelor`s degree in chemical engineering as conferred by
18 anengineering school of good standing, recognized and accredited by the
19 Government;

20 c) A professional chemical engineer who has been in active practice for at least
21 ten (10) years;

22 d) At least being conferred as Senior Specialist Chemical Engineer;

23 e) A member of good standing of the Accredited Integrated Professional
24 Organization;

25 f) Must not be a faculty member or academic administrator, or both of any
26 university, college, school, or institution offering BS or graduate degree
27 program of chemical engineering or BET-Ch.E. program, or both or separated
28 from the aforementioned institution at least one year prior to the oath-taking
29 as Board chairperson or member;

30 g) Must not have any affiliations with review centers or be associated with any
31 groups or organizations that offer or conduct review classes or lectures for
32 licensure examination preparation within one year prior to the oath-taking as
33 Board chairperson or member, and

34 h) Has never been convicted of any offense involving moral turpitude.

35 **SEC. 12. Term of Office.** -The Chairperson and the Members of the Board shall
36 have a term of three (3) years with one reappointment only. No chairperson or member of
37 the Board shall serve for more than two (2) regular terms. Vacancies shall be filled for the
38 unexpired term only. The Chairperson and Members shall qualify by taking the proper oath
39 prior to assumptionof office: *Provided*, That the incumbent Chairperson and Members
40 shall be allowed to serve for the remainder of their term until a new composition of the

1 Board shall have been constituted. The replacement or selection of the members of the
2 Board shall be done one at a time.

3 **SEC. 13. *Secretary of the Board.*** -The Board shall have a Secretary, appointed
4 by the Commission, who shall record the minutes of its meetings and perform such other
5 functions as the Board may require. The Commission shall provide for compensation of
6 the Secretary.

7 **SEC. 14. *Removal/Suspension of the Chairperson and Members.***- The
8 Chairperson or any member of the Board may, upon the recommendation of the PRC, be
9 suspended or removed by the President of the Philippines upon due notice and hearing, for
10 neglect of duties, incompetence, malpractice, commission or tolerance of irregularities in
11 any examination given by the Board, manipulation or rigging of the said examination,
12 tampering of questions prior to the conduct of the said examinations, or tampering of
13 grades, or unprofessional or unethical conduct. The rights of the accused or respondent to
14 be heard, to defend oneself, and to be assisted by counsel shall be respected in the proper
15 administrative investigation to be conducted for the purpose.

16 **SEC. 15. *Compensation of the Board.*** - The Chairperson and members of the Board
17 shall receive compensation and allowances comparable to that being received by the
18 chairpersons and members of existing regulatory boards under the Commission as provided
19 for in the General Appropriations Act.

20 **SEC. 16. *Annual Reports.*** - The Secretary shall prepare an annual report for
21 the consideration and approval of the Board. The Board shall submit an annual report to
22 the Commission after the close of each fiscal year giving a detailed account of the
23 proceedings of the Board during the year and embodying such recommendations to the
24 Commission as the Board may desire to make. The accredited integrated professional
25 organization may request for a copy of the annual report.

26 **ARTICLE III**

27 **LICENSURE EXAMINATION, REGISTRATION AND EXEMPTION**

28 **SEC. 17. *Licensure Examination Requirement.*** - Except as otherwise
29 specifically allowed under this Act, applicants for registration for the practice of chemical
30 engineering shall be required to pass a licensure examination as provided for in this Act in
31 such places and dates as the Commission may designate in the Resolution thereof on the
32 Master Schedules for all licensure examinations in accordance with Sec. 7 (d) of R.A. No.
33 8981, PRC Modernization Act of 2000, as amended.

34 **SEC. 18. *Scope of Examination.*** – The licensure examination for Professional
35 Chemical Engineer shall include Physical and Chemical Principles; General Engineering;
36 and Chemical Engineering: *Provided*, That the relative weight of Chemical Engineering is
37 not less than forty per centum (40%).

38 At least 70% of the examination questions shall focus on the meaningful application
39 of essential understanding, principles, competencies or skills, and professional practice of
40 chemical engineering in the real world.

1 The Board shall revise the scope of licensure examination which will include
2 specialty or specialization subject/s in case of a specialized bachelor's degree of chemical
3 engineering is offered, but the relative weight of specialty or specialization subject/s is not
4 more than thirty per centum (30%).

5 **SEC. 19. Qualifications for the Professional Licensure Examination of**
6 **Chemical Engineer.** - An applicant for the licensure examination for chemical
7 engineer shall meet the following qualifications:

- 8 a) Must be a citizen of the Philippines;
- 9 b) Must be of good moral character;
- 10 c) Must be a graduate of a school, institute, college, or university recognized by the
11 Government and has been conferred the degree of Bachelor of Science in
12 Chemical Engineering; and
- 13 d) Must not have been convicted of an offense involving moral turpitude by a court
14 of competent jurisdiction.

15 **SEC. 20. Qualifications for the Professional Licensure Examination of**
16 **Chemical Engineering Technologist.** - An applicant for the licensure examination
17 for chemical engineering technologist shall meet the following qualifications:

- 18 a) Must be a citizen of the Philippines;
- 19 b) Must be of good moral character;
- 20 c) Must be a graduate of Bachelor of Engineering Technology - Chemical
21 Engineering program or has completed at least 36 units of the professional
22 courses of a Bachelor of Science in Chemical Engineering program according to
23 CHED guidelines; and
- 24 d) Must not have been convicted of an offense involving moral turpitude by a court
25 of competent jurisdiction.

26 **SEC. 21. Qualifications for the Professional Licensure of Chemical**
27 **Process Technician.** - An applicant for the licensure examination for chemical process
28 technician shall meet the following qualifications:

- 29 a) Must be a citizen of the Philippines;
- 30 b) Must be of good moral character;
- 31 c) Must be completed at least 18 units of the professional courses of a Bachelor of
32 Engineering Technology- Chemical Engineering program according to CHED
33 guidelines; and
- 34 d) Must not have been convicted of an offense involving moral turpitude by a court
35 of competent jurisdiction.

36 **SEC. 22. Examination Fees.** - Every applicant admitted to take the chemical
37 engineering professional licensure examination shall pay such fees as may be prescribed
38 by the Commission before allowing to take the examination.

39 **SEC. 23. Report on Rating.** - The Board shall complete the correction of
40 examination papers within twenty (20) days from the last day of the examination. The

Commission shall report the rating of examinees not more than thirty (30) days after the Board has completed the correction of examination papers.

SEC. 24. Exemption from Licensure Examination. - All applicants who have graduated from Internationally Accredited B.S. Ch.E. and Technology programs are entitled to apply for exemption from licensure examination, *Provided:* That all requirements are met according to the provisions of this Act. All applicants for exemption shall still submit additional school portfolio requirements and shall undergo screening. Only those passing the screening process shall be exempted and properly registered.

SEC. 25. Issuance of Certificate of Registration and Professional Identification Card. - The Commission, on recommendation of the Board, enter in the Roster of Professional Chemical Engineers and issue a Certificate of Registration and Professional Identification Card to each person who obtained a general average of no less than seventy per centum (70%) and a rating of no less than fifty per centum (50%) in any examination subject and applicants were screened to be qualified for exemption. Likewise, Certificate of Registration and Professional Identification Card shall be issued to qualified Chemical Engineering Technologists and Chemical Process Technicians. Every Certificate of Registration shall state the full name of theregistrant and his registration number and shall be signed by the Chairperson and Members of the Board and the Commission and authenticated by the official seal of the Commission indicating that the person named therein is entitled to the practice of the profession with all theprivileges appurtenant thereto. The said Certificate of Registration shall remain in full force and effect until it is suspended or revoked in accordance with this Act.

A professional identification card bearing the signature, number, date of issuance, expiry date, duly signed by the Chairman of the Commission shall likewise be issued to everyregistrant who has paid the prescribed fee. This professional identification card shall also be considered a professional license.

SEC. 26. Renewal of Professional License. - Unless otherwise provided by law, rules, regulations or policy, the professional license issued to Professional Chemical Engineer, Chemical Engineering Technologist and Chemical Process Technician shall be valid for three (3) years from its issuance and shall be renewed every after three (3) years on the birth month of the Professional Chemical Engineer, Chemical Engineering Technologist and Chemical Process Technician upon presentation/submission of the proof of the required Continuing Professional Education credit units earned and payment of prescribed fees. Proof of membership of good standing to the AIPO is also a requirement for the license renewal of the Professional Chemical Engineer.

Subject to limitations prescribed by the Implementing Rules and Regulations, the professional license may be renewed prior to its expiration to allow continuing practice of the profession.

A surcharge, as prescribed by the Implementing Rules and Regulations, shall be collected for those who failed to renew their professional licenses for ten (10) consecutive

1 years.

2 **SEC. 27. Seal of Professional Chemical Engineer.** - Each chemical engineer
3 shall, upon registration, obtain a seal as prescribed by the Board bearing the professional's
4 name, registration number and the legend "Professional Chemical Engineer." Plans,
5 specifications, designs, reports, and other professional documents prepared by or
6 executed under the supervision of and issued by the professional shall be stamped on
7 every sheet with said seal, indicating therein the current Professional Tax Receipt (PTR)
8 number, date/place of payment and current membership number in the Accredited
9 Integrated Professional Organization, when filed with the Government authorities or
10 when submitted or used professionally.

11 **SEC. 28. Fees for Registration.** - Every person issued a Certificate of
12 Registration as a professional chemical engineer shall pay to the Commission such fees as
13 the Commission may prescribe.

14 **SEC. 29. Exemptions from Registration and Issuance of Special Permit**
15 **to Practice.** - Registration shall not be required of the following persons upon proper
16 application for exemption with the Board the evaluation of which shall be subject to the
17 condition that there are no Filipino Professional Chemical Engineer of equivalent
18 expertise and skills immediately available for a given application or circumstances:

- 19 a) Chemical engineers, recognized as experts in their specific fields of chemical
20 engineering, called in by the Republic of the Philippines for consultation or for
21 a specific design, installation, or project; *Provided*, that their practice shall be
22 confined to such work;
- 23 b) Chemical engineers, who have distinguished themselves in their respective
24 fields of specification, contracted as professors or lecturers on chemical
25 engineering subjects by Philippine schools, or colleges, institutes or universities
26 on a direct hire or exchange basis, subject to verification of credentials by the
27 Board; and
- 28 c) Chemical engineers, who have distinguished themselves in their respective
29 fields of specification, contracted as consultants, technology providers or
30 specialists on chemical engineering processes by Philippine industrial firms on
31 a direct hire basis, subject to verification of credentials by the Board.

32 **SEC. 30. Suspension or Revocation of Certificate of Registration and**
33 **Cancellation of Special Permit to Practice.** - Any of the following shall be sufficient
34 ground for the suspension or revocation of a Certificate of Registration and cancellation
35 of Special Permit to Practice:

- 36 a) Any act of gross incompetence, negligence, or illegal practice of chemical
37 engineering resulting to damages to property and environment, injury or loss
38 of lives;
- 39 b) Acts inimical to the chemical engineering profession;
- 40 c) Gross immorality or commission of any act involving moral turpitude; and

1 d) Violation of this Act, the rules and regulations, other policies of the Board and
2 the Code of Ethics.

3 Complaints against professional chemical engineers and firms employing chemical
4 engineers may be filed *motu proprio* by any person or by the Board. Complaints shall be
5 in writing and sworn to by the persons executing them. Complaints shall be filed with the
6 Secretary of the Board. *Provided*, That the action of the Board shall be subject to appeal
7 to the Commission within fifteen (15) days from notice, whose decision on the matter shall
8 be final.

9 **SEC. 31. Reissuance of Revoked Certificate of Registration and Special**
10 ***Permit to Practice and Replacement of Lost Certificates.*** - The Board may, for
11 reasons it may deem sufficient and upon proper petition, reissue revoked Certificates of
12 Registration and Special Permit to Practice. A new Certificate of Registration and
13 Special Permit to Practice may be issued to replace a lost, destroyed, or mutilated
14 Certificate, subject to the rules and regulations of the Board, and upon payment of the
15 appropriate fees to the Commission.

16 **ARTICLE IV**

17 **PRACTICE OF CHEMICAL ENGINEERING**

18 **SEC. 32. Vested Rights, Automatic Registration of Chemical**
19 ***Engineers.*** -All chemicalengineers who are registered at the time this Act takes effect
20 shall automatically be recognized as Professional Chemical Engineers.

21 **SEC. 33. Who May Practice Chemical Engineering.** - Except as may be
22 provided in this Act, only professional chemical engineers, with unexpired professional
23 license, shall practice chemical engineering and chemical reaction engineering. The
24 professional chemical engineer shall not be hindered, prevented, restricted, separated, or
25 alienated from practicing the chemical engineering scope of practice and areas of
26 specializations or where chemical engineering principles, fundamentals, and theories are
27 applicable to any field or allied fields of practice including or involving the use of unit
28 operations, unit processes, pollution abatement, separation processes, or transport
29 processes, or both. Furthermore, the use of chemical engineering principles,
30 fundamentals, theories, and areas of practice which are applicable to any field or allied
31 fields of practice including or involving the use of unitoperations, or both, unit processes,
32 pollution abatement, separation processes, or transport processes, or both shall be
33 considered a chemical engineering practice. No firm, partnership, corporation, or
34 association may be licensed and registered as such for the practice of chemical
35 engineering, but duly licensed and registered chemical engineers may form partnerships
36 among themselves or with other licensed and registered engineers and architects and use
37 the title "Chemical Engineers," "Engineers and Architects" in their partnership name.

38 **SEC. 34. Prohibitions in the Practice of Chemical Engineering.** - No
39 person shall practice chemical engineering or render chemical engineering service,
40 without a valid certificate of registration, a valid professional identification card or a

1 special permit to practice. Any person who shall commit the following acts shall be guilty
2 of misdemeanor:

- 3 a) Practice chemical engineering or render chemical engineering services, or pass
4 himself off or advertise himself as a chemical engineer without a valid certificate
5 of registration or valid professional identification card, or both, or when such
6 has been suspended or revoked;
- 7 b) Attempt to use as his own the certificate, valid ID, or seal of another person or
8 impersonate any professional chemical engineer;
- 9 c) Attempt to use a revoked or suspended certificate of registration;
- 10 d) Sign or seal a document involving the design, plan, technical specification and
11 the like with an expired professional identification card or on behalf of another
12 professional chemical engineer; and
- 13 e) Furnish the Board or Commission any false information or document in order
14 to secure a Certificate of Registration or renewal of Professional Identification
15 Card.

16 **SEC. 35. Roster of Chemical Engineers.** - The Commission shall keep a
17 roster of all professional chemical engineers, chemical engineering technologists and
18 chemical process technicians, stating their names, registration numbers and places of
19 business. The Commission shall regularly update such roster and make it available to all
20 interested parties upon formal written request free of charge.

21 **SEC. 36. Submission of Designs and Specifications for Government**
22 **Approval.** - Any proposal, design, specification, working drawings or plan for processes
23 and equipment in an industrial plant, which functions with unit operation, unit process
24 or pollution abatement, or any part thereof submitted to any government agency, national
25 or local, including government-owned or controlled corporations, shall not be processed
26 or approved, nor shall such plant be issued any permit, license, franchise, authorization
27 or certification, unless such proposal, design, specification, working drawing or plan is
28 signed by a professional chemical engineer, with its seal and registration number affixed
29 thereto.

30 The Professional Chemical Engineer shall sign documents related to building codes
31 and regulations that is granted by the relevant government agency responsible for
32 enforcing the process safety requirements, environmental systems design, pollution
33 control installations, chemical storage and hazardous materials facilities in the building
34 codes pursuant to this Act's implementing rules and regulations.

35 **SEC. 37. Hazard Allowance, Health and Accident Insurance, and**
36 **Legal Assistance.** - Professional chemical engineers, chemical engineering
37 technologists and chemical process technicians who are exposed to workplace and
38 process hazards as part of their regular responsibilities are entitled to a commensurate
39 hazard allowance subject to existing laws, rules, and regulations. These should be
40 indicated as separate items in the compensation package and cannot be incorporated in

1 the basic salary.

2 Legal assistance shall be provided by the employer to professional chemical
3 engineers, chemical engineering technologists and chemical process technicians who face
4 civil or criminal suits arising from work done in good faith.

5 **SEC. 38. National Career Progression and Specialization.** - There shall
6 be an institutionalized national chemical engineering career progression and
7 specialization program to be formulated by the Board in consultation with the AIPO, Civil
8 Service Commission and other concerned government agencies. The application process
9 for specialization shall be prepared and implemented by the PRB-ChE with the assistance
10 of the AIPO.

11 **SEC. 39. Code of Technical Standards and Guidelines.** - The existing Code
12 of Technical Standards for the Practice of Chemical Engineering shall be transformed to
13 Philippine Chemical Engineering Standards (PChES) and shall serve as Code of Technical
14 Standards of all professional chemical engineers in the practice of their profession. The
15 Board, in collaboration with the AIPO of chemical engineers, the Department of Science
16 and Technology (DOST), Department of Environment and Natural Resources (DENR),
17 Department of Trade and Industry (DTI), Department of Public Works and Highways
18 (DPWH), Department of Agriculture (DA), Department of Interior and Local Government
19 (DILG), Department of Health (DOH), Department of Energy (DOE), Department of
20 Labor and Management (DOLE), Department of National Defense (DND) and other
21 concerned agencies and private organizations, shall develop new standards under the
22 PChES.

23 **SEC. 40. Foreign Reciprocity.** - No foreign chemical engineer shall be
24 granted any of the right or privilege under this Act unless the country of which he is a
25 subject or citizen grants the same or similar rights or privileges to Filipino chemical
26 engineers.

27 **SEC. 41. Act Not Affecting Other Professions.** - This Act shall not be
28 construed to affect or prevent the practice of any other lawfully recognized profession.
29 However, areas where systems and processes that are chemical engineering in nature or
30 where chemical engineering can be applied, regardless of field, shall not hinder, prevent,
31 restrict, separate, or alienate a professional chemical engineer from practicing such area.

32 **SEC. 42. Indication of Registration/Professional License Number and**
33 **Professional Tax Receipt Payment.** - The professional chemical engineer and
34 chemical process and engineering technologist shall be required to indicate ones
35 Certificate of Registration, Professional Identification Card number, date of issuance in
36 the duration of validity, including the Professional Tax Receipt (PTR) of the documents
37 the professional signs, uses, or issues in connection with the practice of the profession.

38 **SEC. 43. Membership in the Accredited Integrated Professional**
39 **Organization (AIPO).** - There shall be an integrated national organization of chemical
40 engineers duly accredited by the Board and the Commission. A chemical engineer duly

1 registered with the Board and the Commission shall automatically become a member
2 subject to the provisions on membership of the current constitution and by-laws of the AIPO
3 for chemical engineers. The member shall receive benefits appurtenant thereto upon
4 payment of the required fees and dues.

5 **ARTICLE V**

6 **INDUSTRIAL PLANTS CATEGORIES AND RELATED ISSUES**

7 **SEC. 44. Categories of Industrial Plants.** - Unless otherwise provided by the
8 Implementing Rules and Regulations or the Code of Technical Standards, or both the
9 Industrial Plants shall be classified as follows:
10

Industrial Plant Categories	Asset Size (in PHP)
Micro Scale	Up to 3,000,000
Small Scale	3,000,001–15,000,000
Medium Scale	15,000,001–100,000,000
Large Scale	100,000,001 and above

11
12 **SEC. 45. Pollution Control and Abatement and Waste Treatment.** –
13 The pollution control and abatement and waste treatment facilities of any establishment
14 shall be managed, operated, or supervised by a registered professional chemical
15 engineer. Furthermore, the overall waste management of any establishment shall be
16 under the supervision of a resgistered professional chemical engineer.

17 The plan for pollution control and abatement devices and facilities, such as
18 wastewater treatment facility, air pollution control device and treatment, disposal for
19 toxic and hazardous wastes, and other related technologies and devices which are part
20 of building permit requirements, shall be signed by a registered professional chemical
21 engineer with ones seal affixed thereto. Local Government Units shall implement this in
22 addition to other building permit requirements.

23 **SEC. 46. Process and Operation Laboratory.** - Process and operation
24 laboratories, including chemical engineering laboratories, shall be managed, operated,
25 or supervised by a registered professional chemical engineer.

26 **SEC. 47. Technical Guidelines.** - Within sixty (60) days from the approval of
27 this Act, the Board shall enact technical guidelines to implement any technical details
28 therein effectively.

29 **ARTICLE VI**

30 **CERTIFICATE OF PROCESS COMPLIANCE AND OTHER**
31 **REQUIREMENTS**

32 **SEC. 48. Validity of Certificate of Process Compliance.** – The Certificate
33 of Process Compliance is valid for three (3) years, or less than 3 years based on the results

1 of the risks identified during the assessment and as recommended by the Board or
2 Professional Chemical Engineer. These assessments shall be carried out only by a
3 Certifying Professional Chemical Engineer holding a valid physical and digital Certificate
4 of Registration or Professional identification Card, or both, issued by the Board.

5 **SEC. 49. Risk Management Plan.** - All industrial plants shall establish Risk
6 Management Plan focusing on workplace and process safety to prevent exposures and
7 reduce risks; and minimize or eliminate materials and process toxicity. The plan shall have
8 established operational and process control measures on how materials are being handled,
9 workers are protected, and potential risks are mitigated.

10 **SEC. 50. Personnel Required in Industrial Plant, Facility, and**
11 **Institution.** - All micro, small, medium and large-scale industrial plants, facilities and
12 similar institutions engaged in manufacturing operations, unit operations, unit processes
13 and/or pollution control and abatement, which include laboratory facilities such as in-
14 process, process simulation, research and development, quality assurance, and chemical
15 engineering laboratories, shall have a minimum number or complement of resident
16 professional chemical engineers as provided by the Implementing Rules and Regulations
17 and/or Code of Technical Standards:

18 **SEC. 51. Workplace and Process Safety Supervision.** - In the interest of
19 public safety and environmental protection, professional chemical engineers shall be
20 designated to supervise and address workplace and process safety requirements in
21 industrial plant operations. Regardless of the size of the industrial plant, all process
22 equipment and plant design shall be approved by a professional chemical engineer.

23 **SEC. 52. Process Compliance.** - Industrial process shall be reviewed, certified,
24 signed and sealed by a Professional Chemical Engineer.

25 **SEC. 53. Suspension or Revocation of Certificate of Process**
26 **Compliance.** - The Certificates of Compliance may be suspended or revoked for non-
27 compliance with the provisions of this Act.

28 **SEC. 54. Reissuance of Revoked Certificate of Process Compliance and**
29 **Replacement of Lost Certificates.** - The Board may, for reasons it may deem
30 sufficient and upon proper petition, reissue the revoked Certificate of Process
31 Compliance.

32 A new Certificate of Process Compliance may be issued to replace a lost, destroyed,
33 or mutilated Certificate, subject to the rules and regulations of the Board, and upon
34 payment of the appropriate fees to the Commission.

35 **ARTICLE VII**

36 **INDUSTRIAL INSPECTION AND** 37 **WORTHINESS**

38 **SEC. 55. Industrial Inspection.** - There shall be mandatory annual industrial
39 inspections in all industrial plants and related facilities in the Philippines. A well-defined
40 criteria and standards for the inspections shall be provided in the Implementing Rules

1 and Regulations or Code of Technical Standards, or both. These include qualifications and
2 competencies of technical personnel, as well as performance, safety, overall condition,
3 reliability, capability, and compliance of industrial operations.

4 **SEC. 56. *Industrial Worthiness.*** - After an annual industrial inspection and
5 with favorable technical findings, the Certifying Professional Chemical Engineer shall
6 issue a Certificate of Industrial Worthiness to the establishment engaging industrial
7 plant/s, affixing one's signature and seal. If the establishment is engaging two or more
8 industrial plants in different areas, a separate certificate per industrial plant shall be
9 issued.

10 A chemical engineer employed or engaged by the establishment shall not be allowed
11 to inspect and certify the same establishment.

12 No establishment shall be issued a business permit by the Local Government Units
13 without the Certificate of Industrial Worthiness.

14 **SEC. 57. *Application Fee.*** - An application fee shall be paid by any
15 establishment to the Local Government Units, which is starting to engage industrial plant
16 operation, as prescribed by the Implementing Rules and Regulations. The LGU Engineer's
17 Office shall only issue a permit to operate an industrial plant after the issuance of the
18 Certificate of Industrial Worthiness. The application fee amount shall be adjusted every
19 three years by the LGU Treasurer's Office based on price index adjustments.

20 **SEC. 58. *Professional Fee for Certifying Professional Chemical***
21 ***Engineer.*** - A professional fee shall be paid by the establishment to the certifying
22 professional chemical engineer after industrial inspection as per industrial plant, as
23 prescribed by the Implementing Rules and Regulations. The professional fee shall be
24 adjusted every three years by the LGU Treasurer's Office based on price index
25 adjustments.

26 **SEC. 59. *Industrial Worthiness Review.*** - Within fifteen (15) days after
27 industrial inspection and issuance of unfavorable technical findings, any establishment
28 may submit a request to the LGU Engineer's Office for industrial worthiness review.
29 Within five (5) days after the receipt of the review request, the LGU Engineer's Office shall
30 convene the LGU Industrial Review Panel.

31 A review fee, prescribed by the LGU Engineer's Office, shall be paid by the
32 establishment to the LGU. The total review fees collected shall be utilized for the
33 honoraria of the Technical Review Panel chair and members.

34 **SEC. 60. *LGU Industrial Review Panel.*** - The LGU Industrial Review Panel
35 shall be composed of three (3) registered professional chemical engineers who are
36 selected by lottery from the list of all certifying professional chemical engineers. The most
37 senior shall be the chair. The Panel shall conduct industrial re-inspection and
38 documentary review within ten (10) days after its formation and may issue a Certificate
39 of Industrial Worthiness after its favorable technical review findings. A selection lottery
40 shall be made each time there is a request for industrial worthiness review.

SEC. 61. *Administrative Appeal.* - The technical review findings of the LGU Industrial Review Panel may be appealed to the Board of Chemical Engineering within fifteen (15) days after the issuance of the technical review findings. The Board shall conduct industrial re- inspection and documentary review and may issue a Certificate of Industrial Worthiness after its favorable technical review findings. The findings of the Board shall be final.

ARTICLE VIII
CHEMICAL ENGINEERING EDUCATION AND
CONTINUING PROFESSIONAL DEVELOPMENT

SEC. 62. Curriculum Development and Updating. - The CHED, in consultation with the Board, the Accredited Integrated Professional Organization of Chemical Engineers, and the industry stakeholders, shall develop and continuously update the Chemical Engineering Curriculum in accordance with the required competencies on the practice of the profession prescribed under this Act, to align with international standards of chemical engineering education and practice, and to be responsive to the industry requirements.

SEC. 63. Continuing Professional Development (CPD). – The Continuing Professional Development is an integral part in the practice of chemical engineering profession and is considered relevant to sustained competency enhancement, capacity building and renewal of professional license. A CPD Program shall be prescribed and promulgated by the Board in consultation with the Accredited Integrated Professional Organization of Chemical Engineers, concerned government agencies and stakeholders shall prescribe guidelines in the implementation of the CPD programs for chemical engineers. The Board shall maintain the CPD Council that is composed of a Chairperson coming from the Board, a member from the accredited integrated professional organization of chemical engineers, a member from the academe, a member from industry, and a member from the Department of Science & Technology who is a chemical engineer. The CPD for professional chemical engineers is hereby made mandatory for the practice of the profession. The CPD credit units earned by the professional shall be required in the renewal of professional license and accreditation systems for advanced level of practice and other international accreditations.

ARTICLE IX
ACCREDITED INTEGRATED NATIONAL
ORGANIZATION OF CHEMICAL ENGINEERS

SEC. 64. *Membership in the Accredited Integrated Professional Organization of Chemical Engineers.* – There shall be an integrated national organization of chemical engineers duly accredited by the Board and the Commission. A Professional Chemical Engineer, Chemical Engineering Technologist or Chemical Process Technician duly registered with the Board shall become a member of the accredited organization upon oath-taking under the AIPO and payment of prescribed fees and dues

1 and shall receive the benefits and privileges appurtenant thereto. Membership in the
2 accredited integrated national organization shall not be a bar to membership in other
3 associations of chemical engineers.

4 The AIPO shall keep an updated official registry of its bona fide members
5 indicating membership and annual dues official receipt number.

6 Bona fide members of the AIPO practicing the chemical engineering profession
7 shall be required to provide their official AIPO membership number and receipt (PTR) on
8 official documents prepared by them for purposes of obtaining government regulatory
9 permits and licenses.

10 The functions, duties, and responsibilities of the Accredited Integrated Professional
11 Organization of chemical Engineers shall be the following:

- 12 a) Nominations to the vacancy of positions to the Board of Chemical
13 Engineering;
- 14 b) Organize and facilitate the oath-taking of the newly registered Professional
15 Chemical Engineers, Chemical Engineering Technologists and Chemical
16 Process Technicians, in coordination with the Board of Chemical Engineering
17 and PRC. The oath-taking shall be considered a private activity and collected
18 fees shall be counted private funds. The AIPO shall submit a corresponding
19 financial report and list of those who took the oath to the Board of Chemical
20 Engineering and PRC;
- 21 c) Pursuing a program for continuing professional development;
- 22 d) Endorsement of the practice of foreign nationals to be issued
23 temporary/special permit;
- 24 e) Institutionalize and maintain a national chemical engineering registry;
- 25 f) Establish chemical engineering specialties in coordination with the Board of
26 Chemical Engineering;
- 27 g) Organize regular dialogue between the Board of Chemical Engineering,
28 industries, academe and other stakeholders;
- 29 h) Monitoring compliance and endorsing or filing a complaint, or both with the
30 Board or Commission for this act, its IRR, Code of Ethics, Standards of
31 Professional Practice, and other agencies for violation of other relevant laws;
32 regulations and the like; and
- 33 i) Some other functions, duties and responsibilities as prescribed by the Board.

34 **ARTICLE X**

35 **TRANSITORY PROVISIONS**

36 **SEC. 65. Vested Rights.** - Automatic Registration of Professional Chemical
37 Engineers. All chemical engineers who are registered under Republic Act 9297 at the time
38 of the effectivity of this Act shall automatically be considered Professional Chemical

1 Engineers and shall hold the same registration number. The validity and period of the
2 existing professional licenses shall continue in force until its date of expiry.

3 Furthermore, the qualifications of Chemical Engineering Technologist or Chemical
4 Process Technician shall be granted upon application to persons who are currently
5 working as Chemical Engineering Technologist or Chemical Process Technician as
6 provided by the Implementing Rules and Regulations.

7 **SEC. 66. Securing Certificate of Process Compliance.** - There shall be a
8 five (5) year grace period for industrial plants, facilities, and institutions to apply for and
9 secure Certificate of Process Compliance.

10 **ARTICLE XI**

11 **FINAL PROVISIONS**

12 **SEC. 67. Code of Ethics.** - The Board shall adopt a Code of Ethics which shall
13 be promulgated by the Accredited Integrated Professional Organization.

14 **SEC. 68. Penal Clause for the Practice of Chemical Engineering.** - Any
15 person who shall violate any of the provisions of this Act shall, upon conviction, be
16 sentenced to a fine of not less than one hundred thousand pesos (P100,000.00) nor more
17 than one million pesos (P1,000,000.00) or imprisonment for a period of not less than six
18 (6) months nor more than five (5) years or both at the discretion of the court. This includes
19 any person who:

- 20 a) Practices chemical engineering or render chemical engineering services, or
21 passes oneself off or advertises oneself as a chemical engineer without a valid
22 physical and digital certificate of registration and professional identification
23 card or when such has been suspended or revoked;
- 24 b) Attempts to use the certificate or seal of another person, or impersonates any
25 professional chemical engineer;
- 26 c) Attempts to use a revoked or suspended certificate of registration or an expired
27 professional license;
- 28 d) Signs a document involving design, plan, technical specification, and the like
29 on behalf of a professional chemical engineer; or
- 30 e) Furnishes the Board or Commission any false information or document in
31 order to secure a Certificate of Registration or renewal of Professional
32 Identification Card.

33 **SEC. 69. Penal Clause for Industrial Plants, Facilities, and**
34 **Institutions.** - Any industrial plant, facility and institution which shall violate any of
35 the provisions of this Act shall face penalties of not less than One million pesos
36 (P1,000,000.00) nor more than Fifty million pesos (P50,000,000.00) at the discretion
37 of the court. The management or administration of such industrial plants, private and
38 government facilities, and institutions, shall also be held liable for violations of this Act.

39 Suspension, revocation, or non-renewal of any permits, licenses, or certifications
40 necessary for the operation of said industrial plant, facility, or institution shall also be

1 imposed.

2 The responsible officer of such industrial plant, facility and institution shall, upon
3 conviction, be sentenced to a fine of not less than Three hundred thousand pesos
4 (P300,000.00) nor more than Three million pesos (P3,000,000.00) or imprisonment for
5 a period of not less than six (6) months nor more than one (1) year or both at the discretion
6 of the court.

7 **SEC. 70. Penal Clause for violating Code of Technical Standards.** - A
8 person who committed any malfeasance, misfeasance and nonfeasance under the Code of
9 Technical Standards shall, upon conviction, be sentenced to a fine of not less than One
10 hundred thousand pesos (P100,000.00) nor more than One million pesos
11 (P1,000,000.00) or imprisonment for a period of not less than six (6) months nor more
12 than one (1) year or both at the discretion of the court. If the perpetrator is a public official
13 or employee, additionally, a person shall be perpetually barred from holding public office.

14 **SEC. 71. Enforcement Assistance to the Board.** - The Board shall be
15 assisted by the Commission in carrying out the provisions of this Act and its implementing
16 rules and regulations and other policies. The lawyers of the Commission shall act as
17 prosecutors against illegal practitioners and other violators of this Act and its rules. The
18 duly constituted authorities of the government shall likewise assist the Board and the
19 Commission in enforcing the provisions of this Act and its rules.

20 **SEC. 72. Implementing Rules and Regulations.** - Subject to the approval of
21 the Commission and within ninety (90) days from the approval of this Act, the Board shall
22 adopt and promulgate such rules and regulations to carry out the provisions of this Act.
23 Within six (6) months from the approval of this Act, the Board shall adopt and promulgate
24 the Code of Ethics for Chemical Engineers and Philippine Chemical Engineering
25 Standards for the Practice of Chemical Engineering.

26 **SEC. 73. Separability Clause.** - If any provision of this Act is held invalid or
27 unconstitutional, the other provisions not affected thereby shall remain in full force and
28 effect.

29 **SEC. 74. Repealing Clause.** - The Republic Act No. 9297, otherwise known as
30 "The Chemical Engineering Act of 2004," is hereby repealed. All laws, presidential
31 decrees, executive orders, rules and regulations and other issuances or parts thereof
32 which are inconsistent with the provisions of this Act are hereby repealed, amended, or
33 modified accordingly.

34 **SEC. 75. Effectivity.** - This Act shall take effect fifteen (15) days following its
35 publication in the Official Gazette or in two (2) newspapers of general circulation.

36 *Approved,*