

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

Nineteenth Congress
First Regular Session

House Bill No. **7127**



Introduced by **Representative JOEY SARTE SALCEDA**

**AN ACT
ESTABLISHING THE COMPREHENSIVE CHEMICAL ENGINEERING LAW,
AND FOR OTHER PURPOSES**

EXPLANATORY NOTE

Chemical engineers play a vital role in national development by working on projects related to agriculture, water treatment and management, energy production, consumer goods, waste management, recycling and many more. They use their knowledge of chemical processes and materials to design, develop, and optimize systems that efficiently produce, conserve, and utilize resources. Chemical engineers also work to develop sustainable technologies that help to address some of the most pressing global challenges of our time.

With the outbreak of COVID-19, chemical engineers have joined the rest of the science community to respond to the challenges of the pandemic. They are academically and adequately trained to assume responsibility for fighting this pandemic. Chemical engineers have been extending research to combat the COVID-19 pandemic.

Chemical engineers also play a significant role in pollution abatement by designing and developing systems and processes to reduce or eliminate the release of pollutants into the environment. They use their knowledge of chemistry, physics, and engineering to design and optimize processes for the treatment of air and water pollution, and for the safe disposal of hazardous materials.

The Chemical Engineering Law of 2004 (RA 9297) was passed on May 13, 2004, with the goal of repealing Republic Act No. 318 and further defining the scope of practice for chemical engineers in the Philippines, including the creation and composition of the Board of Chemical Engineering under the Professional Regulation Commission. However, since its implementation, the law has not been fully enforced, leading to violations of environmental regulations and unsafe practices in industrial facilities.

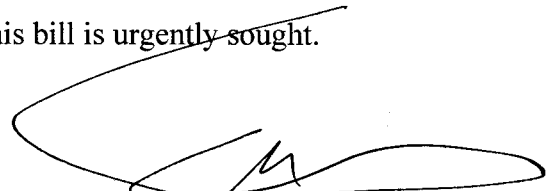
The lack of guidance and expertise from chemical engineers in industrial operations has resulted in inadequate control and safety protocols. This has exposed the public to unsafe practices and violations of environmental regulations. Additionally, many companies do not

prioritize hiring licensed chemical engineers or ensuring their employees maintain valid licenses, leading to a lack of accountability and compliance with regulations. To address these issues, stricter measures are needed to ensure the proper implementation of chemical engineering laws and regulations.

Chemical engineers use their knowledge of chemistry and engineering to design and optimize processes to produce chemicals, fuels, and other materials. With the integration of AI and other advanced technologies, chemical engineers can improve the efficiency and safety of these processes and make them more sustainable. They can also use these technologies to develop new materials and products, and to better understand and control chemical reactions. Additionally, these technologies can help chemical engineers analyze and interpret data, predict, and prevent problems, and make more informed decisions. Overall, the integration of AI and other advanced technologies can help chemical engineers to achieve their goals of improving the quality of life and protecting the environment.

A new “Comprehensive Chemical Engineering Law” is needed to address these issues and improve the implementation of the profession, including provisions for adapting to the outcomes-based engineering educational parameters under the Washington Accord and other international agreements, which would increase the competency and mobility of Filipino chemical engineers both locally and internationally. The bill would also include provisions for addressing COVID-19 responses and other natural and man-made disasters, as well as addressing health concerns and industrial facility operational requirements in the interest of national development, public safety, health, and environmental sustainability. The current law must be repealed for this new bill to pass.

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



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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 of 2023*.”

SEC. 2. *Statement of Policy*. – It is hereby declared the policy of the State to advance, supervise, and regulate the practice of Chemical Engineering in the interest of public safety and national development by providing an ecosystem that encourages innovation and value creation through mutually reinforcing mechanisms of enhanced chemical engineering education guaranteed to imbibe internationally accepted skills and attributes of engineers, a career progression and specialization framework for competitiveness and a prioritization of Filipino Chemical Engineers in the practice of the profession in the Philippines.

SEC. 3. *Definition of Terms*. – Unless otherwise provided, the following terms shall be understood to mean:

(a) *Accredited Integrated Professional Organization* also known as *AIPO* is the professional association of all chemical engineers in the Philippines, duly recognized and accredited by the Professional Regulation Commission;

(b) *Board Chairperson* refers to the Chairperson, Professional Regulatory Board of Chemical Engineering;

(c) *Certificate of Recognition* refers to the certificate issued by the Board of Chemical Engineering in recognition for advance studies and research and accomplishments in Chemical

Engineering;

(d) *Certificate of Industrial Worthiness* refers to a document issued by a certifying professional chemical engineer after an annual industrial inspection and with favorable technical findings;

(e) *Certifying Professional Chemical Engineer* refers a professional chemical engineer who is jointly authorized by the LGU Engineer's Office and the local chapter of the AIPO to conduct industrial inspection and to issue Certificate of Industrial Worthiness;

(f) *CHED* refers to the Commission on Higher Education;

(g) *Chemical Engineering* is a discipline at the interface of molecular sciences and engineering closely linked with the fundamental subjects of chemistry, biology, mathematics, physics and the application of computational science and collaborative with other engineering disciplines. It encompasses the translation of molecular information into discovery of new products and processes and involves molecular transformations by chemical, physical, and biological means with multi-scale description from the sub-molecular to the macroscopic, and the analysis and synthesis of such systems;

(h) *Chemical Engineering Specialist* is an advanced qualification for Chemical Engineers in accordance with the specified requirements of the Philippine Qualifications Framework. The Chemical Engineering Specialist demonstrates a sufficient depth of expertise in a particular practice area;

(i) *Chemical Engineering Technologist (ChET)* is a Sydney Accord qualification which can be availed by a holder of a Bachelor of Engineering Technology (Chemical Engineering) or has completed at least 36 units of the professional courses of a Bachelor of Science in Chemical Engineering program, duly registered by the Professional Regulation Commission and duly endorsed by the AIPO. He/she may be engaged in performing engineering functions in support of the Professional Chemical Engineers' requirements. He/She shall employ established engineering methods, techniques, tools, testing, and resources within the engineering technology domain;

(j) *Chemical Process Technician (CPTech)* is a Dublin Accord qualification which can be availed by a person who has completed at least 18 units of the professional courses of a Bachelor of Engineering Technology (Chemical Engineering) program duly registered by the TESDA and duly endorsed by the AIPO. He/She is skillfully qualified and certified to perform functions related to process equipment monitoring and operation and can apply established practices and procedures related to production in an industrial plant or as laboratory technician for Chemical Engineering Laboratory in an academic institution and/or industrial plant;

(k) *Chemical Engineering and Process Laboratory* shall mean any facility or installation in an industrial plant or academic institution that conducts bench-scale (prototypes), pilot-scale, experimentation and/or measurement, data gathering, process control, and/or testing of process parameters and material properties related to separation processes, transport processes and/or the chemical transformation of raw materials to in-process to finished products;

(l) *Commission* refers to the Professional Regulation Commission (PRC);

(m) *Commission Chairperson* refers to the Chairperson, Professional Regulation Commission;

(n) *CPD* shall mean Continuing Professional Development;

(o) *Digital Twin* refers to a virtual representation of an object or system that spans its lifecycle, updated from real-time data, and uses simulation, machine learning, and reasoning to help in decision-making;

(p) *Engineering & Construction Firms* refer to establishments which offer services on engineering design, procurement of equipment and construction materials, and construction of industrial plants;

(q) *Establishment* refers to any business enterprise, national government agencies, local government units, non-profit organizations, academic institutions, and research centers engaged in activities involving Chemical Engineering Practice;

(r) *Industrial Plant* refers to any plant or facility in which a unit process and/or unit operation are involved, including the related pollution control and abatement processes or operations. This shall include all types of manufacture of industrial or consumer products and goods, as well as industrial or waste treatment facilities and any other related products specified in Production and/or Manufacturing Operation;

(s) *Industrial Safety* refers to the management of all operations and events within an industrial plant to protect its employees and assets by minimizing or eliminating hazards, accidents, and near misses;

(t) *Industrial Worthiness* refers to the quality of being technically compliant, sustainable, safe, and environment-friendly industrial plant process and operation. “Technical-compliance” means compliance with the generally accepted Chemical Engineering and industrial practices and/or relevant standards and codes of international and local scopes as well as legislations;

(u) *Practice of Chemical Engineering* shall mean the performance of activities within the areas of practice of Chemical Engineering Profession and to indicate PChE as suffix to the Professional Chemical Engineer’s name;

(v) *Process* shall mean a series of steps or actions taken to achieve a particular purpose;

(w) *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;

(x) *Process Control* refers to the manipulation of a control device to maintain a process parameter within an acceptable deviation from an ideally required condition;

(y) *Process Equipment* refers to equipment where unit process or unit operation takes place;

(z) *Production Personnel* shall mean engineers, technologists, technicians, and other related technical people employed by establishments operating industrial plants and pollution control and abatement facilities;

(aa) *Professional Chemical Engineer (PChE)* is a natural person or a hybrid of natural person and Artificial Intelligence (AI) and/or Robots and/or 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 his or her 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/or Robots and/or Avatars shall be registered together with the application or renewal of the natural person of his/her Chemical Engineering License. The natural person shall be responsible for providing the signature and digital seal for the outputs created by AI and/or Robots, and/or Digital Twin. AI/Robots/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;

(bb) *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;

(cc) *Professional Regulatory Board of Chemical Engineering*, also known as *PRB-ChE* or *Board of Chemical Engineering*, as created by this Act;

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

(ee) *Republic Act No. 8981* refers to “The PRC Modernization Act of 2000”;

(ff) *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/or industrial risk;

(gg) *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;

(hh) *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, but not limited to, 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 and/or Manufacturing Operation. It also refers to any chemical change, including its equipment and control system that is unique to a specific industry as mentioned in Production and/or Manufacturing Operation 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;

(ii) *Unit Operation* refers to any physical operation, including its equipment and control systems, by which the desired step in any industrial process in an industrial plant or facility is conducted, controlled, monitored, and optimized. It also refers any physical operation, including its equipment and control system that is unique to a specific industry mentioned in Production and/or Manufacturing Operation. They may be combined and/or connected with other unit operations and/or unit processes to deliver sustainable, practical, cost-effective, and environment-friendly products.

This includes, but not limited to the following:

- 1) *Storage, transport, and handling of gas, liquid, and/ or solids*, which includes, but not limited to, 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, etc.; raw materials for production of agricultural products, food and beverage, cement, energy-related industries, semiconductor, and any other types of products as described in Production and/or Manufacturing Operation;
- 2) *Heat transfer* which involves conduction, convection, radiation, or phase change which includes but not limited to, evaporation, sublimation, condensation, melting, combustion, pyrolysis, incineration, pasteurization, sterilization, cooling, freezing, liquefaction, and other new emerging heat transfer technologies;
- 3) *Mass Transfer* which includes, but not limited to, 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 enlargement, screening, crushing, pulverizing, solid mixing, flotation, and other new emerging solid processing and particle technologies; and
- 6) *Process Measurement* which measures dimensions, using process instrumentation, such as, but not limited to, pressure in process pipes or vessels, fluid level, fluid

flow rate or velocity, temperature, product & manufacturing analytics and other new emerging process measurement technologies;

(jj) *Utility Concessionaire* refers to the producers and distributors of utilities such as water and electricity;

(kk) *Waste Treatment Facility* shall mean any installation, building or structure engaged in the handling, treatment, storage, and disposal of solid, liquid, or gaseous wastes from industrial processes; and

(ll) *Waste Treatment Process* shall mean the operations involved in achieving physical, chemical, and biological change in collected wastes so as to attain waste reduction, minimization, and/or elimination.

SEC. 4. *Areas of Practice.* – Professional Chemical Engineers shall be engaged in the following areas of practice:

(a) *Technical Consulting.* Provides professional, independent advisory, and technical solutions to industrial plants, government organizations, non-government organizations, and multilateral institutions appertaining to problems which require the application of chemical engineering concepts and theories. It shall include but not limited to process improvement and optimization, process and operational safety, raw materials treatment and processing, product realization, by-products generation, logistics and supply chain enhancement, waste and wastewater treatment and disposal system management, quality and environmental system management, standard operating procedure development, and emerging technologies adoption and implementation. Moreover, the following services shall be considered as consulting services:

- 1) *Solution and Process Analysis* – Provides independent expert advice and solutions on how to proceed with various technological development, transfer, innovation, and upgrade;
- 2) *Preparation of Feasibility Studies and Plant Design* – Evaluation and analysis of the organizational, technical, geospatial, market, and financial viability of constructing industrial plants, piloting and scaling up and expansion of production processes. It also includes engineering and operations audit and process streamlining;
- 3) *Estimation and/or Valuation* – Determination of capital investments for constructing Industrial Plants, or its Units, or a particular equipment including material and installation costs. It also includes value engineering, cost minimization, cost control, cost forecasting, and risk analysis. In addition, it pertains to the modelling of the size of natural resources or mineral reserves, determining the value of the reserve for the clients' accounting books, and determining the net book value of Industrial Plants or equipment for its intended sale; and
- 4) *Planning* – This pertains to project planning to consulting engagement/s. Project planning refers to a systematic analysis of identifying and listing things that must be undertaken to achieve the project's objectives, testing and validating

the plan and delivering it to end user/s. Planning includes the identification of risk and opportunities related to the plant operations.

Rendering consulting services requires the Professional Chemical Engineer to provide seal and signature on the appropriate pages of the documents of the documented outputs.

(b) *Investigation and Expert Witnessing.* Investigation is any inquiry, examination or study of any adverse event that took place, inside or outside the vicinity of an Industrial Plant or any facility that involves chemical engineering concepts and theories. It utilizes science, technology, law, forensic principles and techniques, sustainability engineering and technologies; and/or chemical engineering knowledge, principles, and professional skills, for the determination, discovery, and verification of facts to arrive at a valid, logical, or sound conclusion for any administrative, civil, criminal or any related cases. This shall also include investigating any persons, materials, substances, products, by-products, raw materials handling and storage, industrial and non-industrial waste handling, storage, disposal, and compliance, structures, components, equipment, industrial and non-industrial processes, and systems that fail to attain design capacities, efficiency, mandatory industrial process compliance, inspection and worthiness, sound environmental and safety requirements.

Industrial Plant Laboratories which perform tests and analyses involving unit operations equipment, unit processes, and/or pollution abatement shall be classified as Chemical Engineering Laboratory, hence, it shall be operated, supervised, and/or managed by a Professional Chemical Engineer. The tests and analyses performed in Chemical Engineering Laboratories shall be performed by a Professional Chemical Engineer and he/she shall affix his/her seal and signature on the Laboratory Report.

Chemical analyses can be conducted by a Professional Chemical Engineer so long as it is incident to his/her function and professional practice as Chemical Engineer.

Any activity performed outside of the aforementioned laboratories, in-field or mobile, are considered Chemical Engineering Practice, hence warrants a signature and seal of a registered Professional Chemical Engineer on every page of the Laboratory Report.

This shall also include any activity, undertaking, engagement and/or technique, related to investigation, to be performed in a chemical engineering laboratory or facility such as, but not limited to unit operations laboratory, unit process laboratory, quality assurance laboratory, research and development laboratory, forensic evidence testing laboratory, pilot plant and other related laboratories, which uses chemical engineering concepts and theories.

Expert witnessing refers to providing an expert opinion in a court of law on matters involving chemical engineering concepts and theories on the subject under litigation. The said expert opinion would then become part of the corpus of evidence in court proceedings.

(c) *Designing and Pilot-testing.*

Process, Plant, and Equipment Design – Any act to conceptualize and simulate processes, size process equipment and pipelines, strategically design the control systems, put in place safety features and layers of protection to the design of an industrial plant or a unit thereof. This function also includes Hazard and Operability Studies, Design Gap Analysis, and Reliability, Availability, and

Maintainability Studies. In the conduct of these activities, the latest version of design tools and technologies and other similar application software may be used. The Professional Chemical Engineer shall affix his/her signature and seal on every page of the output from these activities.

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

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

Preparation of Technical Specifications – Any act or process of making description or identification to provide clear instructions on project intent, performance, and construction of an Industrial Plant, Process Equipment, and/or Chemical Engineering Laboratory. This shall also include the setting of explicit technical standard requirements for material, design, product, 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.

(d) *Supervision of Installation including Construction and Commissioning.* Any act or process of administration, management, inspection, direction, control, and overseeing the construction of Industrial Plant 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 project site which includes quality control appertaining to the technical specifications and completeness against packing lists. It may also include functions such as, but not limited to, progress monitoring of scheduled tasks and activities, making adjustments, when necessary to ensure completion of installation on schedule and within budget or constraints, and accepting or closing the project.

(e) *Production and/or Manufacturing Operation, including Integrated Management Systems.* This shall refer to the operation, supervision, and management of production and/or manufacturing facility of any establishment where Unit Processes, Unit Operations, and/or a series or combination thereof are involved.

The Professional Chemical Engineer shall also perform production planning, optimization, troubleshooting, and process re-engineering in cases where the scope is manageable.

Furthermore, the Professional Chemical Engineer shall manage, supervise and/or operate the pollution control and abatement and waste treatment facilities of Industrial Plants

and other manufacturing or production establishments.

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

A Professional Chemical Engineer shall also engage in metrology.

(g) *Quality Assurance.* Plan, execute, and oversee inspection and testing of product to confirm quality and conformance to specifications and deliverables. Assist Production and/or Manufacturing Operation in tracking, documenting, and reporting quality levels. Analyze and investigate product complaints or reported quality issues to ensure resolution in accordance with company guidelines and external regulatory requirements. Develop and/or update company procedures to ensure capture, investigation, and proper documentation of complaints. Monitor risk-management procedures and maintain problem logs for identifying and reporting issues to management and product development.

(h) *Government Regulatory Functions.* The regulation, inspection, and monitoring of compliance of an Industrial Plant to laws, rules and regulations relating to good manufacturing practices, process safety, food safety, pollution control and abatement, including but not limited to solid wastes and wastewater management, industrial gas emission, and chemical storage, handling, and transport, shall be considered as an area of Chemical Engineering practice. As such, the Department of Environment and Natural Resources, Department of Justice, Department of Public Works and Highways, Department of Trade and Industry, Department of the Interior and Local Government, Department of National Defense, Department of Science and Technology, Department of Foreign Affairs, Department of Agriculture, Department of Energy, Department of Health, Philippine Space Agency, the Local Government Units and other related government agencies are required to hire Chemical Engineers to dispose of the aforementioned regulatory functions.

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

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

(j) *Entrepreneurship.* Chemical Engineering Entrepreneurship deals with the commercialization of chemical engineering technologies from its development to incubation, then to mainstream market adoption.

(k) *Corporate Governance.* The Professional Chemical Engineer may assume Board Membership in Utility Concessionaires as well as in Establishments, imbued with public interest, where such establishment engages in operations that employs the concepts and theories of chemical engineering.

Any Professional Chemical Engineer engaged in Chemical Engineering Entrepreneurship or are assuming directorship in a corporation with chemical engineering-related business, shall be considered as engaged in the practice of chemical engineering.

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

SEC. 5. *Chemical Engineering Specialist.* – The Chemical Engineering Specialists with qualifications as may be determined by the PRB-ChE, and who shall be certified as such having specialization or specialties in certain areas of the chemical engineering practice.

There shall be areas of practice of chemical engineering, that shall be reserved for Chemical Engineering Specialists. For that purpose, the PRB-ChE are to provide rules and regulations for the qualification, certification, and the scope of practice of the Chemical Engineering Specialists.

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

SEC. 7. *Chemical Process Technician (CPTech).* – The Chemical Process Technician shall perform functions related to manufacturing equipment monitoring and operation and applies established practices and procedures which may require performance of duties related to production or as laboratory technician for Chemical Engineering Laboratories in industrial plants and academic institutions. CPTech shall monitor chemical processes and test product quality to ensure that they meet standards and specifications, set-up, operate, and maintain laboratory instruments and equipment, maintain production equipment, and troubleshoot problems.

SEC. 8. *Coverage of Professional Practice.* – A duly licensed professional chemical engineer cannot be prevented from the practice of chemical engineering if the work is within the scope of his/her profession. Likewise, this Act shall not prevent the practice of any legally recognized allied profession: Provided, That the activity is within the scope of the allied profession.

ARTICLE II

THE PROFESSIONAL REGULATORY BOARD FOR CHEMICAL ENGINEERS

SEC. 9. *Selection and Composition of the Members of the Board.* – The Board of Chemical Engineering, herein referred to as the Board, under the administrative control and supervision of the Professional Regulation Commission hereinafter called the Commission, shall be composed of a Chairperson and four (4) members appointed by the President of the Philippines as taken from the nominees recommended by the duly Accredited Integrated

Professional Organization of Chemical Engineers and short-listed by the Commission.

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

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

(a) Supervise, regulate and uphold the practice of the chemical engineering profession in the Philippines in accordance with the provisions of this Act;

(b) Determine the requirements and evaluate the qualifications of the applicants for registration and renewal of license of Professional Chemical Engineer (PChE), Chemical Engineering Technologist (ChET), and Chemical Process Technician (CPTech);

(c) Prescribe the subjects in the licensure examination aligned with the current minimum B.S. Ch.E. and BET-ChE curriculum standards set by the Commission on Higher Education; determine the syllabi of the subjects and their relative weights; develop examination table of specifications; construct the test questions in the examination; score and rate the examination papers; and submit the examination results to the Commission;

(d) Issue together with the Commission, Certificates of Registration and Professional Identification Card to applicants who have passed the licensure examinations for professional chemical engineers;

(e) Issue together with the Commission, Certificates of Registration and Professional Identification Card to applicants who have been certified as chemical engineering technologists and chemical process technicians;

(f) Issue together with the Commission, licensure examination exemptions, Certificates of Registration and Professional Identification Card to applicants who have graduated from Internationally Accredited B.S. Ch.E. and BET-Ch.E. programs;

(g) Issue special permits to persons admitted to the practice of the profession;

(h) Award Certificate of Recognition for advance studies and research and accomplishments in the chemical engineering profession that contribute to its enrichment;

(i) Oversee the conduct of the Continuing Professional Development programs for Professional Chemical Engineers (PChE), Chemical Engineering Technologist (ChET), and Chemical Process Technician (CPTech);

(j) Conduct on-site inspection, submit an inspection report to the Commission and monitor compliance of industrial plants, facilities, institutions and other entities engaged in the scope of practice of Chemical Engineering and shall seek the assistance of the Accredited Integrated Professional Organization in order to carry out these functions;

(k) Inquire into the conditions affecting the practice of the Professional Chemical

Engineer (PChE), Chemical Engineering Technologist (ChET), and Chemical Process Technician (CPTech) and adopt measures for the enhancement and maintenance of a high professional, ethical and technical standard. Pursuant thereto, the Board may inspect establishments where chemical engineers practice their profession in order to determine and enforce compliance with the provisions of this Act;

(l) Issue Certificates of Compliance to Industrial Plants, facilities and institutions engaged in the scope of practice 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 polices, 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. 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 and/or recommendations of the Board to the Commission 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 and/or rules and regulations of the Board;

(w) Prescribe guidelines and criteria on the Continuing Professional Development (CPD) program for chemical engineers in consultation with the integrated and accredited chemical engineering organizations;

(x) In case of exigency of services, the Board may deputize other qualified professional chemical engineers duly recommended by the Accredited Integrated Professional Organization of Chemical Engineers to serve some of their functions, with due compensation to the appointed deputies;

(y) Support and adopt, in partnership with the Accredited Integrated Professional Organization of Chemical Engineers, nationally and/or internationally recognized Philippine registry for chemical engineers;

(z) Institutionalize technical and specialized skills development;

(aa) Recognize chemical engineering specialties and subspecialties;

(bb) Adopt the implementing rules and regulations of this Act; and

(cc) Perform such other functions as may be necessary to implement the provisions of this Act.

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

SEC. 11. *Qualifications of the Board Chairperson and Members.* – The Chairperson and Members of the Board must, at the time of the appointment shall be:

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

(b) At least a holder of a bachelor's degree in chemical engineering as conferred by an engineering school of good standing, recognized and accredited by the Government;

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

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

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

(f) Must not be a faculty member and/or academic administrator of any university, college, school, or institution offering BS and/or graduate degree of chemical engineering or separated from the aforementioned institution at least one year prior to his/her oath-taking as Board chairperson or member; and

(g) Has never been convicted of any offense involving moral turpitude.

SEC. 12. *Term of Office.* – The Chairperson and the Members of the Board shall have a term of three (3) years with one reappointment only. No chairperson or member of the Board shall serve for more than two (2) regular terms. Vacancies shall be filled for the unexpired term only. The Chairperson and Members shall qualify by taking the proper oath prior to assumption of office: Provided that the incumbent Chairperson and Members shall be allowed to serve for the remainder of their term until a new composition of the Board shall have been constituted. Replacement or selection of the members of the Board shall be done one at a time.

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

SEC. 14. *Removal/Suspension of the Chairperson and Members.* – The President upon recommendation of the Commission may remove any member of the Board on the following grounds: conflict of interest, neglect of duty, incompetence, commission or tolerance of irregularities in the licensure examination, malpractice or unprofessional or unethical conduct, violation of this Act or the Code of Ethics for Chemical Engineers, final judgment of crimes involving moral turpitude, after due notice and hearing where his right to be heard, to defend himself and to be assisted by counsel shall be respected.

SEC. 15. *Compensation of the Board.* – The Chairperson and Members of the Board shall receive such compensation or honorarium as may be prescribed by the rules and regulations of the Commission.

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

ARTICLE III LICENSURE EXAMINATION, REGISTRATION AND EXEMPTION

SEC. 17. *Examination Requirement.* – All applicants for registration for the practice of chemical engineering shall be required to pass the licensure examination prescribed herein.

SEC. 18. *Holding of Examination.* – Examination of candidates desiring to practice chemical engineering shall be given twice each calendar year on the dates and venues prescribed by the Board. Such examination shall be conducted by the Board.

SEC. 19. *Scope of Examination.* – The licensure examination for Professional Chemical Engineer shall cover, but shall not be limited to, Physical and Chemical Principles; General Engineering; and Chemical Engineering: Provided, That the relative weight of Chemical Engineering is not less than forty per centum (40%).

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

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

SEC. 20. *Qualifications for Professional Chemical Engineer Examinations.* – Any

person applying for admission must have the following qualifications:

- (a) That he/she is a citizen of the Philippines;
- (b) That he/she is of good moral character;
- (c) That he/she is a graduate of a school, institute, college, or university recognized by the Government and has been conferred the degree of Bachelor of Science in Chemical Engineering; and
- (d) That he/she has not been convicted of an offense involving moral turpitude by a court of competent jurisdiction.

SEC. 21. *Qualifications for the Chemical Engineering Technologist.* – Any person applying for admission must have the following qualifications:

- (a) That he/she is a citizen of the Philippines;
- (b) That he/she is of good moral character;
- (c) That he/she is a graduate of Bachelor of Engineering Technology - Chemical Engineering program or has completed at least 36 units of the professional courses of a Bachelor of Science in Chemical Engineering program according to CHED guidelines; and
- (d) That he/she has not been convicted of an offense involving moral turpitude by a court of competent jurisdiction.

SEC. 22. *Qualifications for Chemical Process Technician.* – Any person applying for admission must have the following qualifications:

- (a) That he/she is a citizen of the Philippines;
- (b) That he/she is of good moral character;
- (c) That he/she has completed at least 18 units of a Bachelor of Engineering Technology- Chemical Engineering program according to CHED guidelines; and
- (d) That he/she has not been convicted of an offense involving moral turpitude by a court of competent jurisdiction.

SEC. 23. *Examination Fees.* – Every applicant admitted taking the chemical engineering examination shall pay such fees as may be prescribed by it before he or she is allowed to take the examination.

SEC. 24. *Report of Rating.* – The Board shall complete the correction of 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. 25. *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. This shall be construed to mean that all qualified applicants may or may not apply; and that 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. 26. 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 the registrant 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 the privileges appurtenant thereto. The said Certificate of Registration shall remain in full force and effect until 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 every registrant who has paid the prescribed fee. This professional identification card shall also be considered a professional license.

SEC. 27. Renewal of Professional License. – 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 failed to renew their professional licenses for ten consecutive years.

SEC. 28. Seal of Professional Chemical Engineer. – Each chemical engineer shall, upon registration, obtain a seal as prescribed by the Board bearing the professional's name, registration number and the legend "Professional Chemical Engineer." Plans, specifications, designs, reports, and other professional documents prepared by or executed under the supervision of and issued by the professional shall be stamped on every sheet with said seal, indicating therein his/her current Professional Tax Receipt (PTR) number, date/place of payment and current membership number in the Accredited Integrated Professional Organization, when filed with the Government authorities or when submitted or used

professionally.

SEC. 29. *Fees for Registration.* – Every person issued a Certificate of Registration as a professional chemical engineer shall pay to the Commission such fees as the Commission may prescribe.

SEC. 30. *Exemptions from Registration and Issuance of Special Permit to Practice.* – Registration shall not be required of the following persons upon proper application for exemption with the Board:

(a) Chemical engineers, recognized as experts in their specific fields of chemical engineering, called in by the Republic of the Philippines for consultation or for a specific design, installation, or project; Provided, that their practice shall be confined to such work;

(b) Chemical engineers; who have distinguished themselves in their respective fields of specification, contracted as professors or lecturers on chemical engineering subjects by Philippine schools, or colleges, institutes or universities on a direct hire or exchange basis, subject to verification of credentials by the Board; and

(c) Chemical engineers; who have distinguished themselves in their respective fields of specification, contracted as consultants, technology providers or specialists on chemical engineering processes by Philippine industrial firms on a direct hire basis, subject to verification of credentials by the Board.

SEC. 31. *Suspension or Revocation of Certificate of Registration and Cancellation of Special Permit to Practice.* – Any of the following shall be sufficient ground for the suspension or revocation of a Certificate of Registration and cancellation of Special Permit to Practice:

(a) Any act of incompetence, negligence, or illegal practice of chemical engineering resulting to damages to property and environment, injury or loss of lives;

(b) Acts inimical to the chemical engineering profession;

(c) Gross immorality or commission of any act involving moral turpitude; and

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

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

SEC. 32. *Reissuance of Revoked Certificate of Registration and Special Permit to Practice and Replacement of Lost Certificates.* – The Board may, for reasons it may deem sufficient and upon proper petition, reissue revoked Certificates of Registration and Special Permit to Practice.

A new Certificate of Registration and Special Permit to Practice may be issued to

replace a lost, destroyed, or mutilated Certificate, subject to the rules and regulations of the Board, and upon payment of the appropriate fees to the Commission.

ARTICLE IV PRACTICE OF CHEMICAL ENGINEERING

SEC. 33. *Vested Rights, Automatic Registration of Chemical Engineers.* – All chemical engineers who are registered at the time this Act takes effect shall automatically be recognized as Professional Chemical Engineers.

SEC. 34. *Who May Practice Chemical Engineering.* – Except as may be provided in this Act, only professional chemical engineers, with unexpired professional license, shall practice chemical engineering. The professional chemical engineer shall not be hindered, prevented, restricted, or alienated from practicing the chemical engineering areas of practice and/or where chemical engineering principles, fundamentals, and theories are applicable to any field or allied fields of practice including and/or involving the use of unit operations, unit processes, pollution abatement, separation processes, and/or transport processes. Furthermore, the use of chemical engineering principles, fundamentals, theories, and areas of practice which are applicable to any field or allied fields of practice including and/or involving the use of unit operations, unit processes, pollution abatement, separation processes, and/or transport processes shall be considered a chemical engineering practice. No firm, partnership, corporation, or association may be licensed and registered as such for the practice of chemical engineering, but duly licensed and registered chemical engineers may form partnerships among themselves or with other licensed and registered engineers and architects and use the title “Chemical Engineers,” “Engineers and Architects” in their partnership name.

SEC. 35. *Prohibitions in the Practice of Chemical Engineering.* – No person shall practice chemical engineering or render chemical engineering service, without a valid certificate of registration, a valid professional identification card or a special permit to practice. Any person who shall commit the following acts shall be guilty of misdemeanor:

(a) Practice chemical engineering or render chemical engineering services, or pass himself off or advertise himself as a chemical engineer without a valid certificate of registration and/or valid professional identification card or when such has been suspended or revoked;

(b) Attempt to use as his own the certificate, valid ID, or seal of another person or impersonate any professional chemical engineer;

(c) Attempt to use a revoked or suspended certificate of registration;

(d) Sign or seal a document involving the design, plan, technical specification and the like with an expired professional identification card or on behalf of another professional chemical engineer; or

(e) Furnish the Board or Commission any false information or document in order to secure a Certificate of Registration or renewal of Professional Identification Card.

SEC. 36. *Roster of Chemical Engineers.* – The Commission shall keep a roster of all professional chemical engineers, chemical engineering technologists and chemical process

technicians, stating their names; registration numbers and places of business. The Commission shall regularly update such roster and make it available to all interested parties upon formal written request free of charge.

SEC. 37. *Submission of Designs and Specifications for Government Approval.* – Any proposal, design, specification, working drawings or plan for processes and equipment in an industrial plant, which functions with unit operation, unit process and/or pollution abatement, or any part thereof submitted to any government agency, national or local, including government-owned or controlled corporations, shall not be processed or approved, nor shall such plant be issued any permit, license, franchise, authorization or certification, unless such proposal, design, specification, working drawing or plan is signed by a professional chemical engineer, with its seal and registration number affixed thereto.

SEC. 38. *Hazard Allowance, Health and Accident Insurance, and Legal Assistance.* – Professional chemical engineers, chemical engineering technologists and chemical process technicians who are exposed to workplace and process hazards as part of their regular responsibilities are entitled to a commensurate hazard allowance, medical benefits, and insurance coverage. These should be indicated as separate items in the compensation package and cannot be incorporated in the basic salary.

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

SEC. 39. *National Career Progression and Specialization.* – There shall be an institutionalized national chemical engineering career progression and specialization program to be formulated by the Board in consultation with the AIPO, Civil Service Commission and other concerned government agencies. The application process for specialization shall be prepared and implemented by the PRB-ChE with the assistance of the AIPO.

SEC. 40. *Code of Technical Standards.* – The existing Code of Technical Standards for the Practice of Chemical Engineering shall be transformed to Philippine Chemical Engineering Standards (PChES) and shall serve as Code of Technical Standards of all professional chemical engineers in the practice of their profession. The Board, in collaboration with the AIPO of chemical engineers, the DOST, DENR, DTI, DPWH, DA, DILG, DOH, DOE, DOLE and other concerned agencies and private organizations, shall develop new standards under the PChES.

SEC. 41. *Foreign Reciprocity.* – No foreign chemical engineer shall be granted any of the right or privilege under this Act unless the country of which he is a subject or citizen grants the same or similar rights or privileges to Filipino chemical engineers.

SEC. 42. *Act Not Affecting Other Professions.* – This Act shall not be construed to affect or prevent the practice of any other lawfully recognized profession.

SEC. 43. *Indication of Registration/Professional License Number and Professional Tax Receipt Payment.* – The professional chemical engineer and chemical process and engineering technologist shall be required to indicate his Certificate of Registration, Professional Identification Card number, date of issuance in the duration of validity, including the Professional Tax Receipt (PTR) of the documents he signs, uses, or issues in connection with the practice of his profession.

SEC. 44. *Membership in the Accredited Integrated Professional Organization (AIPO).* – There shall be an integrated national organization of chemical engineers duly accredited by the Board and the Commission. A chemical engineer duly registered with the Board and the Commission shall automatically become a member subject to the provisions on membership of the current constitution and by-laws of the AIPO for chemical engineers. The member shall receive benefits appurtenant thereto upon payment of the required fees and dues.

ARTICLE V CERTIFICATE OF PROCESS COMPLIANCE

SEC. 45. *Certificate of Process Compliance.* – The Board, after inspection, shall issue a Certificate of Process Compliance valid for three (3) years to industrial plants or similar facilities, provided, that tasks which require Chemical Engineering knowledge and skills shall be carried out only by Professional Chemical Engineers holding a valid physical and/or digital Certificate of Registration and Professional Identification Card issued by the Board. In addition, the industrial plants or similar facilities shall be in compliance with all the related regulatory requirements, Risk Management Plan and the Philippine Chemical Engineering Standards. The management or administration of such industrial plants and similar shall be held liable for any violation/s of this Act.

SEC. 46. *Risk Management Plan.* – All industrial plants shall establish Risk Management Plan focusing on workplace and process safety to prevent exposures and reduce risks; and minimize or eliminate materials and process toxicity. The plan shall have established operational and process control measures on how materials are handled, workers are protected, and potential risks are mitigated.

SEC. 47. *Process Compliance.* – Industrial process shall be reviewed, certified, signed and sealed by a Professional Chemical Engineer.

SEC. 48. *Suspension or Revocation of Certificate of Process Compliance.* – Certificates of Compliance may be suspended or revoked for non-compliance with the provisions of this Act.

SEC. 49. *Reissuance of Revoked Certificate of Process Compliance and Replacement of Lost Certificates.* – The Board may, for reasons it may deem sufficient and upon proper petition, reissue revoked Certificate of Process Compliance.

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

ARTICLE VI INDUSTRIAL INSPECTION AND WORTHINESS

SEC. 50. *Industrial Inspection.* – There shall be mandatory annual industrial inspections in all industrial plants and related facilities in the Philippines.

SEC. 51. *Industrial Worthiness.* – After an annual industrial inspection and with favorable technical findings, the Certifying Registered Professional Chemical Engineer shall issue a Certificate of Industrial Worthiness to the establishment engaging industrial plant/s, affixing his or her signature and seal. If the establishment is engaging two or more industrial plants in different areas, a separate certificate per industrial plant shall be issued.

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

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

SEC. 52. *Application Fee.* – An application fee shall be paid by any establishment to the Local Government Units, which is starting to engage industrial plant operation, as prescribed by the Implementing Rules and Regulations. The LGU Engineer's Office shall only issue a permit to operate an industrial plant after the issuance of the Certificate on Industrial Worthiness. The application fee amount shall be adjusted every three years by the LGU Treasurer's Office based on price index adjustments.

SEC. 53. *Professional Fee of Certifying Registered Professional Chemical Engineer.* – A professional fee shall be paid by the establishment to the certifying registered professional chemical engineer after industrial inspection as per industrial plant, as prescribed by the Implementing Rules and Regulations.

The professional fee shall be adjusted every three years by the LGU Treasurer's Office based on price index adjustments.

SEC. 54. *Industrial Worthiness Review.* – Within fifteen (15) days after industrial inspection and issuance of unfavorable technical findings, any establishment may submit a request to the LGU Engineer's Office for industrial worthiness review. Within five (5) days after the receipt of the review request, the LGU Engineer's Office shall convene the LGU Industrial Review Panel.

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

SEC. 55. *LGU Industrial Review Panel.* – The LGU Industrial Review Panel shall be composed of three (3) registered professional chemical engineers who are selected by lottery from the list of all certifying registered professional chemical engineers. The most senior shall be the chair. The Panel shall conduct industrial re-inspection and documentary review within ten (10) days after its formation and may issue a Certificate of Industrial Worthiness after its favorable technical review findings. Selection lottery shall be made each time when there is a request for industrial worthiness review.

SEC. 56. *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 VII
CHEMICAL ENGINEERING EDUCATION AND
CONTINUING PROFESSIONAL DEVELOPMENT

SEC. 57. *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, in order to align with international standards of chemical engineering education and practice, and to be responsive to the industry requirements.

SEC. 58. *Continuing Professional Development (CPD).* – 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 advance level of practice and other international accreditations.

ARTICLE VIII
ACCREDITED INTEGRATED NATIONAL ORGANIZATION
OF CHEMICAL ENGINEERS

SEC. 59. *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 and shall receive the benefits and privileges appurtenant thereto. Membership in the accredited integrated national organization shall not be a bar to membership in other associations of chemical engineers.

The AIPO shall keep an updated official registry of its bonafide members indicating membership and annual dues official receipt number.

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

The functions, duties, and responsibilities of the accredited integrated organization of registered chemical engineers shall be the following:

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

ARTICLE IX TRANSITORY PROVISIONS

SEC. 60. *Vested Rights.* – Automatic Registration of Professional Chemical Engineers. All chemical engineers who are registered under Republic Act 9297 at the time of the effectivity of this Act shall automatically be considered Professional Chemical Engineers and shall hold the same registration number. The validity and period of existing professional license shall continue in force until its date of expiry.

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

SEC. 61. *Securing Certificate of Process Compliance.* – There shall be a five (5) year grace period for industrial plants, facilities, and institutions to apply and secure Certificate of Process Compliance.

ARTICLE X FINAL PROVISIONS

SEC. 62. *Code of Ethics.* – The Board shall adopt a Code of Ethics which shall be promulgated by the Accredited Integrated Professional Organization.

SEC. 63. *Penal Clause for the Practice of Chemical Engineering.* – Any person who shall violate any of the provisions of this Act shall be guilty of misdemeanor and shall, upon conviction, be sentenced to a fine of not less than One hundred thousand pesos (P100,000.00) nor more than One million pesos (P1,000,000.00) or imprisonment for a period of not less than six (6) months nor more than five (5) years or both at the discretion of the court. This includes any person who:

(a) Practices chemical engineering or render chemical engineering services, or passes himself/herself off or advertises himself/herself as a chemical engineer without a valid physical and digital certificate of registration and professional identification card or when such has been suspended or revoked;

(b) Attempts to use as his/her own, the certificate or seal of another person, or impersonates any professional chemical engineer;

(c) Attempts to use a revoked or suspended certificate of registration or an expired professional license;

(d) Signs a document involving design, plan, technical specification, and the like on behalf of a professional chemical engineer; or

(e) Furnishes the Board or Commission any false information or document in order to secure a Certificate of Registration or renewal of Professional Identification Card.

SEC. 64. *Penal Clause for Industrial Plants, Facilities, and Institutions.* – Any industrial plant, facility and institution which shall violate any of the provisions of this Act shall be guilty of misdemeanor and shall, upon conviction, be sentenced to a fine of not less than One Million pesos (P1,000,000.00) nor more than Fifty Million pesos (P50,000,000.00) at the discretion of the court. The management or administration of such industrial plants, private and government facilities, and institutions, shall also be held liable for violations of this Act.

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

SEC. 65. *Penal Clause for violating Code of Technical Standards.* – A person who committed any malfeasance, misfeasance and nonfeasance under the Code of Technical Standards shall, upon conviction, be sentenced to a fine of not less than one hundred thousand pesos (P100,000.00) nor more than One million pesos (P1,000,000.00) or imprisonment for a

period of not less than six (6) months nor more than one (1) year or both at the discretion of the court. If the perpetrator is a public official or employee, additionally, he/she shall be perpetually barred from holding public office.

SEC. 66. *Enforcement Assistance to the Board.* – The Board shall be assisted by the Commission in carrying out the provisions of this Act and its implementing rules and regulations and other policies. The lawyers of the Commission shall act as prosecutors against illegal practitioners and other violators of this Act and its rules. The duly constituted authorities of the government shall likewise assist the Board and the Commission in enforcing the provisions of this Act and its rules.

SEC. 67. *Implementing Rules and Regulations.* – Subject to the approval of the Commission, the Board shall adopt and promulgate such rules and regulations including Code of Ethics for Chemical Engineers and Philippine Chemical Engineering Standards for the Practice of Chemical Engineering to carry out the provisions of this Act.

SEC. 68. *Separability Clause.* – If any provision of this Act is held invalid or unconstitutional, the other provisions not affected thereby shall remain in full force and effect.

SEC. 69. *Repealing Clause.* – Republic Act No. 9297, otherwise known as “The Chemical Engineering Act of 2004” is hereby repealed.

All laws, presidential decrees, executive orders, rules and regulations and other issuances or parts thereof which are inconsistent with the provisions of this Act are hereby repealed, amended or modified accordingly.

SEC. 70. *Effectivity.* – This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in at least two (2) newspapers of general circulation in the Philippines.

Approved,