



Salary Grade Reclassification for Mechanical Engineering Practitioner in the Pumping Stations in Metro Manila

Arturo M. Almoros

MPA-Student

Engineer – II, Mechanical Engineer, Philippines

Abstract:

This research article will serve as an initiative to review the salary grade of Mechanical Plant Operator and Mechanical Plant Supervisor in the Pumping Stations and to align it with the Philippine Mechanical Engineering Law (RA 8495) and with the Philippine Qualification Framework. Reclassification of position by designating new salary grade to the current position and title. Position and title reclassification leading to the job and morale satisfaction and improvement of output is an effort where job responsibilities and tasks are re-examined. The statement “one size does not fit all” is the result from the review of global practice. Specific education and training are necessary for every designation, office work is different from technical work also the personnel with a basic education on hand is not qualified to perform the duty of work requiring licensure and regulation. To give the services that the public is looking forward from the government is to restructure itself. Changing the culture of government by redesign will improve public services. Wanting a change exists in most government organizations and a realization of doing and doing the old things the same way is not practical. The method of redesign gives us power to applied positive action while eliminating all disadvantages to stakeholder. Most scholars think that the fundamental questions about work design have been already solved. As businesses and organizational structures transforms, jobs need to be redesign to meet the demand of the always changing world.

I. INTRODUCTION:

The author will set as an initiative to upgrade the status on the practice of profession in mechanical engineering in the pumping stations and floodgates operations of the Metropolitan Manila Development Authority in the Philippines. Also, reclassification of salary grade will uplift the morale of personnel in the pumping station. Since the high school graduate cannot handle the existing mechanical plant for it is too huge capacity for their level of education and training. The officer-in-charge for the operation of pumping station is force to hire personnel with background in mechanical and electrical engineering to fit the worker to their responsibilities but because of low compensations the turnover is high, the organization is force to field personnel with lower training. The review will focus on the job redesign and salary grade reclassifications of workers in the organizations. Reclassify job title & status is an innovative and potentially effective method for improving the productivity of personnel in the organisation. Job redesign if religiously put in action; will result to more interesting and challenging work for employees. To have well motivated personnel is the best asset an organization can have for they will give the most of initiative and effort required to do well for the benefits all. Workers are there to keep the organization run smoothly and give services. Place the right person in the right job and to get the maximum output and uplifting their morale and the level of satisfaction by reengineering and upgrading the title and position. Position which is properly designed, avoids a situation where one will have to say “it’s not in my job description”. The development, recognition and award of qualifications based on standards of knowledge, skills and values acquired in different ways and methods by learners and workers of a certain country. Qualification refers to a package of competencies describing a

particular function or job role existing in an economic sector, covering the work activities required to undertake a particular job. For the practice of Profession, it should follow the laws of the land. To align the practice of profession of mechanical engineering in the pumping station to the Philippine Mechanical Engineering Law RA 8495, and to the Philippine Qualification Framework it is ideally be the Mechanical plant Operator-1, be equal to the salary grade 8, equivalent the salary grade of Engineering Assistant which require an completion or equivalent of two year college education in engineering, the Mechanical Plant Operator-2 be upgrade from salary grade 6 to salary grade 9 which is to have the same compensation to Computer Operator-2 and the Mechanical Plant Operator-3 to raise from salary grade 9 to salary grade 10.

II. MECHANICAL ENGINEERING BASICS

Mechanical engineers research, design, develop and test mechanical and thermal devices including tools, engines, and machines. Some of the more-common devices serve the medical, energy, and automated manufacturing sectors. Many mechanical engineers work in general-purpose and automotive manufacturing, or for architectural and engineering service companies. Mechanical engineers also work in research and development testing laboratories.

They typically spend their workdays in professional office settings but sometimes visit work sites to solve problems with existing equipment. Mechanical engineers work hard and often put in long days. According to the BLS, more than one-third of mechanical engineers worked over 40 hours a week in 2012. Candidates who continue their education to keep abreast of technological innovations will likely fill the best jobs opening up in the field.

Steps to Becoming a Mechanical Engineer

1. Obtain a Bachelor's Degree in Mechanical Engineering. The BLS reports that a bachelor's degree in mechanical engineering is necessary for most entry-level positions in the field. ...
2. Earn an Engineering License. ...
3. Obtain Certifications (Optional)

Republic Act No. 8495 February 12, 1998

AN ACT REGULATING THE PRACTICE OF MECHANICAL ENGINEERING IN THE PHILIPPINES

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

ARTICLE. I. TITLE, STATEMENT OF POLICY AND DEFINITION OF TERMS

Section 1. Title. – This Act shall be known as the "Philippine Mechanical Engineering Act of 1998."

Section 2. Statement of Policy. – The State recognizes the importance of mechanical engineers in nation building and development. Their talents through sustainable human development shall be promoted. Thus, the State shall develop and nurture competent, virtuous, productive and well-rounded mechanical engineers whose standard of professional practice and service shall be excellent, qualitative, world-class and globally competitive through regulatory measures, programs and activities.

Section 3. Definition of Terms. – As used in this Act, the following terms shall mean as follows:

(a) **Practice of Mechanical Engineering** – A person shall be deemed to be practicing mechanical engineering or rendering mechanical engineering service within the meaning and intent of this Act when he performs the following:

- (1) Consultation, valuation, investigation and management services requiring mechanical engineering knowledge;
- (2) Engineering design, preparation of plans, specifications and projects studies or estimates for mechanical equipment, machinery, or processes of any mechanical works, projects or plants;
- (3) Management or supervision of the erection installation, alteration, testing and commissioning of mechanical equipment, machinery, or processes in mechanical works, projects or plants;
- (4) Management, supervision, operation, tending or maintenance of any mechanical equipment, machinery or processes in mechanical work, projects or plants;
- (5) Management or supervision of the manufacture, sale, supply or distribution of mechanical equipment, parts or components;
- (6) Teaching of mechanical engineering professional subjects in government recognized and accredited engineering schools; and
- (7) Employment in government as a professional mechanical engineer, registered mechanical engineer, or certified plant mechanic if the nature and character of his work is in line with

his profession, requiring professional knowledge of the science of mechanical engineering.

(b) **Mechanical equipment or machinery.** – includes all prime movers such as steam engines and turbines, internal combustion engines and gas engines and turbines; steam generators such as boiler; furnaces; heat exchanger such as cooling towers, kilns and dryers, coolers and heaters; materials handling equipment, such as pumps, cranes, conveyors, hoists, elevators, escalators, mechanized dumb-waters, moving ramps and walkways; heating, air-conditioning, ventilating, and refrigeration equipment and machinery, including compressors and centrifugal fans, mechanical pollution abatement and environmental control system; piping system with a working pressure of not less than 70 kpa., fired and unfired pressure vessels, printing machine; mechanical working machines for metallic and non-metallic materials and other mechanical equipment and machinery whether installed on land, underground, or on board watercraft.

(c) **Mechanical processes, works, projects or plants** shall include stem plants, geothermal plants, dendro-thermal plants, nuclear plants, ocean thermal energy conservation (OTEC) plants, internal combustion plants hydraulic plants, pumping plants, compressed gas plants, all kinds of mills, shops, factories, shipyards drydocks, heating, air-conditioning, ventilating and refrigeration plants containing any mechanical equipment machinery or process deriving power from steam, fossil fuels, wind, air, gas, water, solar heat, nuclear energy, ocean waves and tides, or other energy sources.

(d) **Capacity of process works, project or plant-rated capacity** in kilowatt of mechanical works, projects or plants for the purpose of this Act shall be the total kilowatt rating of all engines, motors, boilers, turbines, or other prime movers installed for use in such works, projects or plants, whether in operation or not, and without regard to the number of capacities of the mechanical equipment, machinery or processes receiving power from or intended to be driven by such prime movers.

ARTICLE. II. BOARD OF MECHANICAL ENGINEERING

Sec. 4. **Creation and Composition of the Board of Mechanical Engineering.** – There is hereby created a Board of Mechanical Engineering, hereinafter called the Board, to be composed of a Chairman and two (2) members to be appointed by the President of the Philippines from a list of three (3) recommendees for each position, chosen, ranked in the order of preference and submitted by the Professional Regulation Commission, hereinafter referred to as the Commission, from a list of five nominees submitted by the duly accredited association of mechanical engineers in the Philippines. The Board shall be organized not later than six (6) months from the effectivity of this Act.

Section 5. **Qualification of Members of the Board.** – A member of the Board shall, at the time of his appointment, possess the following qualifications:

- (a) Natural born citizen and resident of the Philippines;
- (b) Must be at least thirty-five (35) years of age;
- (c) Holder of the degree of Bachelor of Science in Mechanical Engineering or its equivalent, conferred by a school, academy,

college or university in the Philippines or abroad that is accredited by the Commission on Higher Education (CHED);

(d) A Professional Mechanical Engineer with a valid professional license and an active practitioner as such, for not less than ten (10) years prior to his appointment;

(e) Must not, for a period of three (3) consecutive years prior to appointment, be a member of the faculty of any, school, academy, institute, college or university where a regular course in mechanical engineering is being taught, nor have pecuniary interest in or administrative supervision over any such institutions of learning;

(f) Must not, for a period of three (3) consecutive years prior to appointment, be connected with a review center or with any group or association where review classes or lectures in preparation for the licensure examination are offered or conducted at the time of appointment; and

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

Section 6. Term of Office. – A member of the Board shall hold office for a term of three (3) years from the date of his appointment or until his successor shall have been qualified and duly appointed, unless, however, that such incumbent member has been reappointed for another three (3) year term. No member of the Board shall serve for more than two (2) regular terms. Any vacancy occurring within the term of a member due to resignation, conviction of any kind, disability or death, shall be filled by appointment by the President of the Philippines; and such member appointed shall serve for the unexpired portion of the term vacated without prejudice to serve for a maximum of two (2) full terms. If the appointee comes from the incumbent Board, he shall serve the remaining vacated term in addition to the previous years he had already served and shall be qualified for reappointment in his new position: Provided, his number of years of service shall not exceed two (2) regular full terms. Each member of the Board shall take his oath of office prior to the official performance of his duties.

Section 7. Compensation and Allowances of the Board Members. – The Chairman and members of the Board shall receive compensation and allowances comparable to the compensation and allowances being received by the Chairmen and members of existing regulatory boards with the Commission and as may be provided for in the General Appropriations Act.

Section 8. Supervision of the Board, Custodian of its Records, Secretariat and Support Services. – The Board shall be under the general supervision of the Commission. All records of the Board, including application for examination, examination papers and results, minutes of deliberation, administrative cases, and other investigative cases involving the profession shall be kept by the Commission. The Commission shall designate the secretary of the Board and shall provide the Secretariat and other support services to implement the provisions of this Act.

Section 9. Power and Duties of the Board. – The Board shall exercise the following specific powers, functions, duties and responsibilities:

(a) To promulgate and adopt the rules and regulations necessary for carrying out the provisions of this Act;

(b) To supervise the registration, licensure and practice of mechanical engineers in the Philippines;

(c) To administer oaths in connection with the successful examinees entering the practice of Mechanical Engineering;

(d) To issue the certificate of registration to successful examinees;

(e) To issue, suspend and/or revoke, after due process certificates of registration and issue, cancel and suspend professional license or cancel special permits for the practice of mechanical engineering, for causes provided by law;

(f) To adopt an official seal of the Board;

(g) To look into the conditions affecting the practice of the mechanical engineering profession and whenever necessary, adopt such measures as may be deemed proper for the enhancement and maintenance of high professional and ethical standards of the profession;

(h) To prescribe and/or adopt a Code of Ethical and Professional Standards for the practice of the mechanical engineering profession.

(i) To hear and try administrative cases involving violations of this Act, its Implementing Rules and Regulations, the Code of Ethics for Mechanical Engineers, and for this purpose, to issue subpoena and subpoena duces tecum to secure the appearance of witnesses and the production of documents in connection therewith;

(j) Prescribe guidelines in the Continuing Professional Education (CPE) program in coordination with accredited association of mechanical engineers;

(k) Prepare, adopt, issue or amend the syllabi of the subjects for examinations;

(l) Approve, issue, limit or revoke temporary license to practice mechanical engineering; and (m) Discharge such other duties and functions as may be deemed necessary for the enhancement of the mechanical engineering profession and the upgrading, development and growth of mechanical engineering education in the Philippines.

Section 10. Annual Report. – The Board shall, at the close of each calendar year, submit an annual report to the President of the Philippines through the Professional Regulation Commission giving a detailed account of its proceedings and accomplishments during the year and making recommendations for the adoption of measures that will upgrade and improve the conditions affecting the practice of mechanical engineering in the Philippines.

Section 11. Removal of Board Member. – The President upon recommendation of the Commission may remove any member

of the Board on the following grounds; neglect of duty or incompetence, violation or tolerance of the violation of this Act or the Code of Ethics for Mechanical Engineering, final judgment of crimes involving moral turpitude, after having given the member an opportunity to be heard and/or defend himself in a proper administrative investigation.

ARTICLE.III. EXAMINATION, REGISTRATION AND LICENSE

Sec12. Examination Required. – All applicants for registration for the practice of mechanical engineering shall be required to undergo and pass a written technical examination as provided for in this Act.

Section 13.Categories– Certificates of registration for the practice of mechanical engineering shall be of three (3) categories and in order of rank as follows:

- (a) Professional Mechanical Engineer;
- (b) Mechanical Engineer; and
- (c) Certified Plant Mechanic.

Section14 Qualification of Applicants for Professional Mechanical Engineer. – Any applicant to the Professional mechanical engineering examination must, at the time of filing of his application, establish to the satisfaction of the Board that:

- (a) He is a citizen of the Philippines;
- (b) He must not have been convicted by a court of law of a crime involving moral turpitude;
- (c) He has a valid certificate of registration and he is a registered mechanical engineer and a holder of a valid professional license;
- (d) He has graduated from an engineering school or college of recognized standing, after completing an approved course in mechanical engineering;
- (e) He has specific record of a total of four (4) years or more of active mechanical engineering practice, reckoned from time he is registered a mechanical engineering practice; and
- (f) He is competent to practice, as attested to by at least two (2) professional mechanical engineers.

Section 15 Qualifications of Applicants for Mechanical Engineer. – Any person applying for examination and for a Certificate of Registration as Mechanical Engineer shall, prior to admission to the examinations, establish to the satisfaction of the Board that:

- (a) He is a citizen of the Philippines;
- (b) He must not have been convicted by a court of law of a crime involving moral turpitude;
- (c) He holds the degree of Bachelor of Science in Mechanical Engineering from a university, school, college, academy, or

institute duly constituted and recognized as such by the government.

Section 16.Qualifications of Applicants for Certified Plant Mechanic. – Any person applying for examination for certificate of registration as Certified Plant Mechanic shall establish to the satisfaction of the Board that:

- (a) He must not have been convicted by a court of law of a crime involving moral turpitude;
- (b) He has graduated from a vocational or trade school duly recognized by the government after completing an approved course of not less than two (2) years in stationary or power plant engineering or any mechanical plant operation; and
- (c) He has specific record of an additional one (1) year or more of active practice in mechanical plant operation of such character as indicated in an affidavit of a registered professional mechanical engineer and, likewise establish to the satisfaction of the Board, that the applicant is competent to undertake the operation, tending and maintenance of mechanical works, projects or plant of not less than one hundred (100) kilowatts.

Section 17.Scope of Examination. – The scope of examination and the methods of procedure shall be prescribed by the Board with special reference to the applicant's ability to perform the type of engineering work pertaining to the particular category he is to be registered in.

(a) Professional Mechanical Engineer – The granting of professional mechanical engineer Certificate of Registration shall be testimonial in nature which shall include the submission of an enumeration of the applicant's experience including the presentation of an engineering report/technical paper pertinent to his line of experience attested to by two (2) or more professional mechanical engineers in an affidavit for this purpose;

(b) Mechanical Engineer – The applicant shall pass a written examination on different subjects or group of subjects prescribed by the Board, and within the syllabi prepared by the Board with emphasis on power plant and industrial plant engineering, mathematics, engineering economics, economic analysis, laws and ethics and machine design.

The subjects in which the applicant for Mechanical Engineers shall be examined are:

1. Machine Design, Materials & Shop Practice
2. Industrial & Power Plant Engineering
3. Mathematics Engineering Economics and basic engineering sciences

(c) Certified Plant Mechanic – The examination for Certified Plant Mechanic may be written or oral on subject matters based on the following submitted statement of experience:

1. Elements of Power Plant Machinery
2. Elements of Industrial Plant Machinery; and

Subject to the approval of the Commission, the Board may amend or revise the subjects, their syllabi, passing average, and the system and procedure in the licensure examinations for the practice of mechanical engineering and the corresponding weight pursuant to implementing rules and regulations issued for this purpose. The said subjects and their syllabi may be amended by the Board so as to conform to technological changes brought about by continuing trends in the profession.

Section 18.Ratings. – To pass the examination, a candidate for a professional mechanical engineer, a mechanical engineer, and certified plant mechanical must obtain an average of seventy percent (70%) on all subjects, with no rating below fifty percent (50%) in any of the subjects.

Section 19.Report of Ratings. – The Board should submit to the Commission, the ratings obtained by each candidate within fifteen (15) days after the examinations, unless extended for just cause.

Section 20.Re-examination. – An applicant who fails to pass the examination for the third time shall be allowed to take another examination only after the lapse of one year.

Section 21.Oath. – All successful candidates in the examination shall be required to take an oath of profession before the Board or any government official authorized to administer oaths, prior to entering upon the practice of the mechanical engineering.

Section 22.Issuance of Certificates of Registration and Professional License. – Upon payment of the registration fee as established by the Commission, the Board shall issue a certificate of registration to any applicant who has met all the requirements specified in this Act for the particular category he is registering in. All certificates of registration shall indicate the full name of the registrants, signed by all the members of the Board and the Commission and affixed with the official seal of the Commission. The issuance of a certificate of registration by the Board to a registrant is evidence that the person named therein is entitled to all the privileges of a registered and licensed professional mechanical engineer, mechanical engineer or certified plant mechanic, as the case may be, for as long as said certificate remains valid. A professional license bearing the registration number, date of issuance, expiry date and duly signed by the chairman of the Board, shall likewise be issued to every registrant, provided that professional fees have been paid. No person shall practice mechanical engineering in this country unless such person shall have secured a license to practice Mechanical Engineering in the manner herein provided. A licensee is entitled to practice the profession with all the privileges appurtenant thereto until the expiration of the validity of his license. Subject to the approval of the Commission, certificates of specialty shall be issued by the Board, subject to the approval of the Commission to Professional Mechanical Engineers who have been screened and recommended by accredited mechanical engineers association. These are for specific fields in which the applicants have specialized knowledge, training and experience and have documented their competence and expertise. The Board, shall subject to the approval of the Commission, and after consultation with said

association concerned, prescribe and issue the necessary guidelines for the issuance of these certificates.

Section 23. Integration and Accreditation of Mechanical Engineers. – An integrated organization of mechanical engineers shall be created and accredited by the Board of Mechanical Engineering and the Professional Regulation Commission. All persons whose names now appear in the roll of professional mechanical engineers, mechanical engineers, and certified plant mechanics under the custody of the Board and the Commission, or those who may hereafter be included therein upon registration and payment of the required fees shall automatically become members of the integrated and accredited organization of mechanical engineers. The integration of the mechanical engineering profession shall not be a bar to the formation of voluntary organization of mechanical engineers which may coexist with the integrated and accredited organization of mechanical engineers. The Board, subject to the approval by the Commission and after consultation with the existing accredited organization of mechanical and other affiliated organization of mechanical engineers and, if possible with the substantial number of the mechanical engineers who are non-organization members, shall provide the guidelines and mechanisms for the establishment and creation continued supervision of the integrated and accredited organization of mechanical engineers. The registered and licensed engineers and certified plant mechanics shall receive the benefits and privileges appurtenant to their membership in duly integrated and accredited mechanical engineering association only upon payment of the required fees and dues.

Section 24.Seal of a Professional Mechanical Engineer. – A professional mechanical engineer shall, upon registration, obtain a seal of such design prescribed by the Board, bearing the registrant's name, the certificate number and the legend "Professional Mechanical Engineer." Designs, plans, specifications, project feasibility studies, appraisals, recommendations, technical reports, proposals, and other professional documents involving mechanical equipment, works, projects or plants shall be stamped on every sheet with said seal of the registrant when filed with government authorities or when submitted or used professionally: Provided, That it shall be submitted or used professionally: Provided, that it shall be unlawful for anyone to stamp or seal any document with the said seal after the certificate shall have been revoked or cancelled.

Section 25.Non-issuance of Certificate for Certain Grounds. – The Board shall not issue a certificate of registration to any person convicted by court of competent jurisdiction of any crime involving moral turpitude, or immoral or dishonorable conduct or any person of unsound mind declared by a court of competent jurisdiction, furnishing the party concerned a written statement containing the reasons for such action, which statement shall be incorporated in the records of the Board.

Section 26.Revocation and Suspension of Certificate. – The Board shall have the power, upon proper notice and hearing, to suspend or revoke any certificate of registration of any registrant for any cause specified in the preceding section, or for the use in whatever way of any fraud or deceit in obtaining a certificate of registration, or for gross negligence or incompetence or for

unprofessional or dishonorable conduct and for violation of the code of ethics for mechanical engineers and certified plant mechanics: 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.

Section 27. Grounds for Suspension and Revocation of Licenses, Cancellation of Temporary/Special Permit. – The Board shall have the power, upon due notice and hearing, to revoke or suspend the license of mechanical engineers, or to cancel a temporary/special permit for any cause specified in the preceding sections, including but not limited to: the use or perpetuation of any fraud or deceit in obtaining a certificate of registration, or for competence, negligence, or for abatement of the illegal practice of mechanical engineering, violation of the provisions of this Act, its implementing Rules and Regulations and/or violations of Policies of the Board including the Code of Ethics for Mechanical Engineering: Provided, however, That such action of the Board shall be subject to appeal without prejudice to the right of the aggrieved party to apply with the proper Regional Trial Court for appropriate relief.

Section 28. Reinstatement & Replacement of the Certificates. – The Board, upon application and for reasons of equity and justice, may reinstate the validity of a revoked certificate of registration and professional license, upon payment of the required fees, at least two (2) years after revocation. A new certificate of registration to replace any certificate lost, destroyed or mutilated may be issued, subject to the rules of the Board, and upon payment of the required fee.

Section 29. Renewal of License. – The professional license shall serve as evidence that the licensee can lawfully practice his profession until the expiration of its validity. However, renewal of license can only be done upon payment of renewal fee corresponding to three (3) consecutive years.

Section 30. Vested Rights: Automatic Registration of Practicing Mechanical Engineers. – All practicing Mechanical Engineer who are registered at the time this Act takes effect shall automatically be registered.

Section 31. Coverage of Temporary/Special Permits. – The following shall be required to secure a Temporary/Special Permit from the Board subject to the approval by the Commission.

(a) Mechanical engineers, installation, commission or guarantee engineers from other countries called in for consultation or for a specific design or installation, project not requiring more than three (3) months residence in the Philippines in a twelve (12) month period: Provided, That such engineers are legally qualified to practice mechanical engineering in their own country or state in which the requirements and qualifications for obtaining a certificate of registration are at least equal to or more than those specified in this Act as certified by the Board;

(b) Foreigners employed as technical officers, training officers or consultants in such special branches of mechanical engineering who, in the judgment of the Board, are necessary and advantageous for the country particularly in the aspects of

technology transfer, may be issued temporary permits: Provided, That such engagements have satisfied conditions, as may be deemed necessary as follows:

(1) Non-availability of a mechanical engineer and/or mechanic in the country who is competent, able and willing at the time of engagement to perform the service for which the foreigner is desired for;

(2) The foreigner must have been in the prior employ of the engaging firm, or its foreign business partner, outside of the Philippines for a period of not less than one (1) year immediately preceding the date of his engagement;

(3) Any particular or specific engagement shall not be in excess of six (6) months but may be renewed once, if necessary except when such engagement is for a newly established firm in which case the period of engagement may be for a longer term but not to exceed a total term of two (2) years.

Section 32. Indication of License and Professional Tax Receipt. – The Mechanical Engineer shall be required to indicate his Professional License number, the duration of validity, including the professional tax receipt number on the documents he signs, uses or issues in connection with practice of his profession.

ARTICLE .IV. PRACTICE OF THE PROFESSION

Sec 33. Field of Action Authorized for Each Category: Prohibition.– It shall be unlawful for any person, unless authorized under this Act:

(a) to be in responsible charge of the preparation of plans, designs, investigations, valuation, technical reports, specifications, project studies or estimates or to be in performance of other professional mechanical engineering activities unless he is a duly licensed Professional Mechanical Engineer.

(b) to teach professional subjects in mechanical engineering course unless he is a duly licensed Professional Mechanical Engineer, or a Master's degree, or Doctorate degree holder in mechanical engineering.

(c) to be in responsible charge of the construction, erection, installation, alteration, or of the performance of a mechanical engineering service in connection with the manufacture, sale, supply or distribution of any mechanical works, project or plant either for himself or for other, unless he is a duly registered Professional Mechanical Engineer or Mechanical Engineer.

(d) to operate, tend or maintain, or be in-charge of the operation, tending, or maintenance of any mechanical works, projects, plant of 100 kw., or more but not more than 300 kw unless he is a duly licensed Professional Mechanical Engineer, Mechanical Engineer or Certified Plant Mechanic.

(e) to operate, tend, or maintain, or be in-charge of the operation, tending, or maintenance of any mechanical equipment, machinery or process for any mechanical works, projects or plants of 300 kilowatts or above but not more than 2000 kw

unless he is a duly licensed Professional Mechanical Engineer or Mechanical Engineer.

(f) to operate, tend or maintain, or to be in charge of the operation, tending or maintenance of any mechanical equipment, machinery process for any mechanical works, projects or plants of over 2000 kw unless he is a duly licensed Professional Mechanical Engineer.

Section 34. Personnel Required in Mechanical Plant. – Every mechanical work project or plant in operation shall have not less than the following complement of resident licensed professional mechanical engineer, mechanical engineer or certified plant mechanic:

(a) 100 kw or over but not more than 300 kw: one (1) certified plant mechanic, or more mechanical engineer or one (1) professional mechanic engineer: Provided, That every mechanical work, project, or plant in this category operating in more than one shift every twenty-four hours, shall have in addition to the minimum personnel herein required, one (1) certified plant mechanic, or one (1) mechanical engineer, or one (1) professional mechanical engineer in-charge of each and every additional shift.

(b) 300 kw or over, but not more than 2000 kw: one (1) mechanical engineer or one (1) professional mechanical engineer or one (1) professional mechanical engineer: Provided, That every mechanical work, project, or plant in this category operating in more than one shift every twenty-four (24) hours shall have, in addition to the minimum personnel herein required at least one (1) mechanical engineer, or one (1) professional mechanical engineer in-charge of each and every additional shift.

(c) Over 2000 kw: one (1) professional mechanical engineer: Provided, That every mechanical work, project or plant in this category operating in more than one shift every twenty-four (24) hours shall have, in addition to the minimum personnel herein required at least one (1) professional mechanical engineer in-charge of each and every additional shift. **Section 35. Preparation of Plans and Supervision of Construction by Licensed Engineers Required.** – It shall be unlawful for any person to order or otherwise cause the fabrication, construction, erection, installation or alteration of any mechanical equipment, machinery or process for any mechanical works, projects, or plants, unless the designs, plans, layouts or specifications have been prepared by or under the responsible charge of, and duly signed and sealed by a Professional Mechanical Engineer. Likewise, proposals and quotations for the supply and fabrication of mechanical equipment, works, projects, plants, mechanical pollution abatement systems, mechanical fire protection systems, pressurized pipes with a working pressure of not less than 70 kpa., shall be duly signed and sealed by a Professional Mechanical Engineer. **Section 36. Practice Not Allowed for Firms and Corporations.** – The practice of mechanical engineering is a professional service, admission to which shall be determined upon the basis of an individual's personal qualifications. No firm, company partnership, association or corporation may be registered or licensed as such for the practice of mechanical engineering: Provided, however, That persons properly registered and licensed as mechanical engineers may form and obtain registration with Security and

Exchange Commission of a firm, partnership or association using the term "Mechanical Engineers", and or "Architect and Mechanical Engineers" but nobody shall be a member, partner or associate unless he is a duly registered and licensed mechanical engineer, and the members who are mechanical engineers shall only render work and services proper for mechanical engineers as defined in this Act.

Section 37. Posting of Certificates. – The owner, manager, or other person in-charge of any mechanical works, projects, or plants of one hundred (100) kw or more, of a firm, co-partnership, corporation or joint-stock association, shall post or cause to be posted in a conspicuous place within such plant of business, the original certificate of registration of the engineer or engineers and of the certified plant mechanic/s employed in such plant, in a frame protected by transparent glass or its equivalent.

Section 38. Roster of Engineers and Mechanics. – A roster showing the names and place of business of all registered professional mechanical engineers, mechanical engineers and certified plant mechanics, shall be prepared by the commission which shall be made available to any interested parties upon formal written request.

Section 39. Foreign Reciprocity. – No foreign mechanical engineer or mechanic shall be allowed to practice mechanical engineering or be given a certificate of registration or be entitled to any of the privileges under this Act unless he can prove in the manner provided by the rules of Court or by specific provisions of law or regulations, that the country of which he is a subject or citizen in the spirit of reciprocity, permits Filipino mechanical engineers and/or mechanics to practice within its territorial limits on the same basis as the subject or citizens of such country or state.

Section 40. Enforcement of the Act by the Officers of the Law. – The Professional Regulation Commission shall be the enforcement agency of the Board. As such, the Commission shall implement the concerned provisions of this Act, enforce its implementing rules and regulations as adopted by the Board, conduct investigations on complaints including violations of the Code of Conduct of the profession and prosecute when so warranted. It shall be the duty of all duly constituted authorities through the officers of the law of the national government, or any provincial, city, or municipal government or any political subdivision thereof, to enforce the provisions of this act and to prosecute any person violating the same.

Section 41. Qualification Requirements. – In a government or private institution where a position requires a master's degree holder, a holder of professional mechanical engineer license shall be eligible for the position. Likewise, where a position requires a professional mechanical engineer's license, a holder of a master's or doctorate degree in mechanical engineering, with a registered mechanical engineer's license shall be considered for the position.

ARTICLE. V. PENAL AND CONCLUDING PROVISIONS

Sec. 42. Penalties. – In addition to the administrative sanctions imposed under this Act any person who violates any of the provisions of this Act and its rules and regulations shall, upon conviction be penalized by a fine of not less than Fifty thousand

pesos (P50,000.00) nor more than Two hundred thousand pesos (P200,000.00), or imprisonment of not less than six (6) months nor more than three (3) years, or both fine and imprisonment at the discretion of the court.

Section 43. Implementing Rules and Regulations. – The Board shall formulate and issue the implementing rules and regulations to carry out the provisions of this Act.

Section 44. Funding Provisions. – Such sums may be necessary to carry out provisions of this Act shall be included in the General Appropriations Act of the year following its enactment into law and thereafter.

Section 45. Reparability Clause. – If any section or portion of this Act shall be declared unconstitutional or invalid, the same shall not invalidate all other sections or portions not affected thereby.

Section 46. Repealing Clause. – Commonwealth Act No. 294, as amended by Republic Act No. 5336, is hereby repealed and all other laws, parts of law, orders, ordinances, or regulations relative to the practice of mechanical engineering which are inconsistent with the provisions of this Act are hereby repealed or modified accordingly.

Section 47. Transitory Provisions. – (a) Mechanical Plant Engineers possessing valid certificates of registration issued

under Commonwealth Act No. 294 with BSME degree shall, after the approval of this Act, register and be issued certificates as professional mechanical engineers to replace their original certificate of registration upon payment of the required fees.

(b) Faculty Members currently teaching mechanical engineering professional subjects in universities, colleges, institutes or schools shall not be allowed to continue teaching after five (5) years from the approval of this Act, unless they are or have become Professional Mechanical Engineers or at least Registered Mechanical Engineers with a Master's degree in Mechanical Engineering from duly recognized and accredited universities, colleges, institutes or schools.

(c) The present Board shall continue to function in the interim until such time as the new Board shall be constituted.

Section 48. Effectively Clause. – This Act shall take effect fifteen (15) days following its publication in the Official Gazette or a major daily newspaper of general circulation in the Philippines, whichever is earlier. **Approved:** February 12, 1998
The Lawphil Project - Arellano Law Foundation Constitution Statutes Executive Issuances Judicial Issuances Other Issuances Jurisprudence International Legal Resources AUSL Exclusive

Table.1.

Position	At Present Salary Grade/ Comparison to	Ideal Salary Grade/Comparison to
Mechanical Plant Operator I	Salary Grade 4 Driver II Electrician I Mechanic I	Salary Grade 8 Broadcast Operator II Electronics and Communications Equipment Technician II Engineering Assistant
Mechanical Plant Operator II	Salary Grade 6 Draftsman I Electrician II Foundry Worker II	Salary Grade 9 Computer Operator II Mechanic III Secretary II
Mechanical Plant Operator III	Salary Grade 9 Metal Worker Foreman Meter Reader III Storekeeper III Welder Foreman	Salary Grade 10 Accounting Machine Operator III Agricultural Technologist Medical Laboratory Technician III Metals Technologist III
Mechanical Plant Supervisor I	Salary grade 11	Salary grade 11
Mechanical Engineer I	Salary Grade 12	Salary Grade 12
Mechanical Plant supervisor II	Salary Grade 13	Salary grade 13
*Mechanical Plant Supervisor III (A possible to be created position for a space for professional growth of personnel with a degree in Mechanical engineering)	N/A	Salary Grade 14 Advertising Officer II Cashier II Draftsman IV Supply Officer II
*Mechanical Plant supervisor IV (A possible to be created position for a space for professional growth of personnel with a degree in Mechanical engineering)	N/A	Salary grade 15 Agriculturist II Budget Officer II Computer Maintenance Technologist II
Engineer II	Salary Grade 16	Salary Grade 16
Engineer III	Salary Grade 19	Salary Grade 19

Table.2. Comparison table

Position	Salary Grade	Qualifications
Engineering Aide	4	High School Graduate
Engineering Assistant	8	2 nd year College (completion of or equivalent)
Engineer I	12	Licensed/Registered Engineer
Engineer II	16	Licensed/Registered Engineer
Engineer III	19	Licensed/Registered Engineer
Engineer IV	22	Licensed/Registered Engineer

Table. 3.

Mech. Plant Operator III	MPO3-105	9	P198,144.00	High School Graduate or completion of relevant vocational/trade course	4 hours of relevant training	1 year of relevant experience	Mechanical Equipment Operator (-50Hp) (MC 11, S.96-Cat. II)	Operation & Maintenance Division II - FCSMO
Mech. Plant Operator III	MPO3-104	9	P198,144.00	High School Graduate or completion of relevant vocational/trade course	4 hours of relevant training	1 year of relevant experience	Mechanical Equipment Operator (-50Hp) (MC 11, S.96-Cat. II)	Operation & Maintenance Division II - FCSMO
Mech. Plant Operator III	MPO3-103	9	P198,144.00	High School Graduate or completion of relevant vocational/trade course	4 hours of relevant training	1 year of relevant experience	Mechanical Equipment Operator (-50Hp) (MC 11, S.96-Cat. II)	Operation & Maintenance Division II - FCSMO
Mech. Plant Operator II	MPO2-34	6	P160,536.00	High School Graduate or completion of relevant vocational/trade course	None Required	None Required	Mechanical Equipment Operator (-50Hp) (MC 11, S.96-Cat. II)	Operation & Maintenance Division II - FCSMO
Mech. Plant Operator II	MPO2-33	6	P160,536.00	High School Graduate or completion of relevant vocational/trade course	None Required	None Required	Mechanical Equipment Operator (-50Hp) (MC 11, S.96-Cat. II)	Operation & Maintenance Division II - FCSMO
Dredgeman Foreman	DGNF-1	8	P184,416.00	High School Grad. or Completion of relevant vocational/trade course	4 hours of relevant training	1 year of relevant experience	Heavy Eqt. Operator (MC11, s.96 - Cat. 1)	Flood Control and Drainage Division (MMDA)

This figure is the online publish list of vacant positions. As stated here for Mechanical Plant Operator it only requires a high school graduate and for 50 HP machine, but the actual and ideal pumping stations (plant) total kilowatt in Metro Manila is **above 100 kW from small pumping station to a large pumping station which is above 2000 kW, equivalent to 134 Hp and 2,680 Hp respectively.** From this number the practice of profession in the pumping station should be followed the Philippine Mechanical Engineering Law.

III. SUMMARY RESULT:

Why it is need for reclassification? For the practice of mechanical engineering in the country it must be govern by the existing laws and rules.

Republic Act 8495

An Act Regulating the Practice of Mechanical Engineering in the Philippines

Sec. 1. This Act shall be known as the –Philippine Mechanical Engineering Act of 1998

Sec. 3. a.) Practice of Mechanical engineering - A person shall be deemed to be practicing mechanical engineering or rendering mechanical engineering service within the meaning and intent of this Act when he performs the following:

- (1) Consultation, valuation, investigation and management services requiring mechanical engineering knowledge;
- (2) Engineering design, preparation of plans, specifications and projects studies or estimates for mechanical equipment, machinery, or processes of any mechanical works, projects or plants;
- (3) Management or supervision of the erection, installation, alteration, testing and commissioning of mechanical equipment, machinery, or processes in mechanical works, projects or plants;
- (4) Management, supervision, operation, tending or maintenance of any mechanical equipment, machinery or processes in mechanical work, projects or plants;
- (5) Management or supervision of the manufacture, sale, supply or distribution of mechanical equipment parts or components;
- (6) Teaching of mechanical engineering professional subjects in government recognized and accredited engineering schools; and
- (7) Employment in government as a professional mechanical engineer, registered mechanical engineer, or certified plant mechanic if the nature and character of his work is in line with his profession requiring professional knowledge of the science of mechanical engineering.

Table.4. Table of Professional Practice

ARTICLE IV SEC. 33. (d, e, f) To operate, tend or maintain, or be in-charge of the operation, tending or maintenance of any mechanical works, projects and plants.

SCOPE OF WORK	CAPACITY	CPM	ME	PME
Sec. 33. (d)	100kW to 300kW	Y	Y	Y
Sec. 33. (e)	Above 300kW to 2000kW		Y	Y
Sec. 33. (f)	Above 2000kW			Y

Some of the factors and trends leading to the revised of existing practice the need for harmonization and integration with:

- The Philippine Qualification Framework.
- The Asean Qualifications Reference Framework.
- Internationally recognized foreign qualifications (to facilitate Mutual Recognition Agreements).
- The requirements of industry (to strengthen certain competencies of professionals entering the job market).

IV. REFERENCE

[1]. <https://www.accenture.com/us-en/insight-redesigning-back-office-government-transformation>

[2]. Barrett, Sharon Keschull; 2012. <https://eric.ed.gov/?id=ED539982>

[3].Borgonovo, Alfred Jean-Marie; 2018.REDESIGNING THE ACCOUNTANCY CURRICULUM OF THE PHILIPPINES .<https://businessmirror.com.ph/2018/10/29/redesigning-the-accountancy-curriculum-of-the-philippines-3/>

[4]. Chalcraft, Emilie, 2012, <https://www.dezeen.com/2012/09/20/ben-terrett-on-digital-design-for-government-websites/>.

[5]. Chia-Der Lin, Blossom Yen-Ju Lin, Cheng-Chieh Lin & Cheng-Chun Lee, 2015. <https://www.tandfonline.com/doi/abs/10.3402/meo.v20.28327>

[6]. Christiansen, Jesper; 2015.<http://designforeurope.eu/news-opinion/redesigning-culture-and-functionality-government>

[7]. Frank Konkel, 2015, <https://www.nextgov.com/cio-briefing/2015/04/18/fs-hillary-hartley-creating-user-centered-government/107508/>.

[8]. Grant, Adam M. & Parker, Sharon K.: 2009, 7 REDESIGNING WORK DESIGN THEORIES: THE RISE OF RELATIONAL AND PROACTIVE PERSPECTIVES. <https://www.tandfonline.com/doi/abs/10.1080/19416520903047327>

[9]. Layman, Elizabeth; 2011.<http://library.ahima.org/doc?oid=105300#XHZAuogzbDc>

[10]. MACK, Chris; 2018. <https://www.Extract systems.com/govnews-blog/2018/9/25/redesigning-government-websites>

[11]. Maupin, Rebekah J. (1990). <https://www.emeraldinsight.com/doi/abs/10.1108/01437739010003282>

[12].MedhaBasu, 2016, <https://govinsider.asia/innovation/how-singapore-redesigned-public-service-centres/>

[13].**Philippine Mechanical Engineering Act of 1998** Robinson, Adam; 2014. hireology.com

[14]. SatishDeshpande and YogendraYadav, 2016, https://www.jstor.org/stable/4418341?seq=1#page_scan_tab_contents

[15]. SeverinHornung, Denise M. Rousseau, Matthias Weigl, Andreas Müller & Jürgen Glaser, 2013, <https://www.tandfonline.com/doi/abs/10.1080/1359432X.2012.740171>

[16]. The Philippine Qualifications Framework, Executive Order No.83 Series of 2012. © 2017 The University of Pennsylvania, <file:///E:/021119/Position%20Reclassification%20and%20Salary%20Adjustments.html>.

[17]. Woods, Carol; 2015. <https://study.com>

[18]. Zvada, Emmanuel; 2018. REDESIGNING JOBS: A TOOL FOR MOTIVATING EMPLOYEES, by Newsday

[19]. 2018. <http://jobredesign.sra.org.sg/getting-started/overview-of-retailsector/why-job-redesign/>

[20]. 2014. DESIGNING EFFECTIVE CIVIL SERVICE REFORM LESSONS FROM PAST EXPERIENCE. <https://doi.org/10.1002/pad.1684>

[21]. <http://careers.stateuniversity.com/pages/7996/State-Government-Worker.html>>State Government Worker Job Description, Career as a State Government Worker, Salary, Employment - Definition and Nature of the Work, Education and Training Requirements, Getting the Job

[22]. This-revised Index of Occupational Services, Position Titles and Salary Grades (IOS) of the Position Classification and Compensation System is being issued pursuant to Sections 6 and 9 of Republic Act (RA) 6758.

[23]. The objective was to assess the benefits of the redesigned program and identify potential improvements. 2015,**Chia-Der Lin, Blossom Yen-Ju Lin, Cheng-Chieh Lin & Cheng-Chun Lee, <https://www.tandfonline.com/doi/abs/10.3402/meo.v20.28327>**

[24]. The importance of the culture of decision-making and the professional expertise of public servants is the substantial function of government. **Christiansen, J., 2015, Redesigning**

the culture and functionality of government. [http:// design for europe.eu/ news-opinion/redesigning-culture-and-functionality-government](http://designforeurope.eu/news-opinion/redesigning-culture-and-functionality-government)

[25]. Initiatives to redesign to improve the quality of services. HAM, C., KIPPING, R., McLeod, H., 2003. Redesigning work processes in health care: lessons from the national health service. Retrieved from [https:// online library. wiley. com/ doi/ abs/ 10.1111/1468-0009.t01-3-00062](https://online.library.wiley.com/doi/abs/10.1111/1468-0009.t01-3-00062)

[26]. **Rebekah J. Maupin, (1990),Redesigning management consulting practices. [https://www. Emeraldin sight. com/ doi/ abs/10.1108/01437739010003282](https://www.emeraldinsight.com/doi/abs/10.1108/01437739010003282)**

[28]. **“What we settled on as the true transformative concept for how to create change in government and redesign government is that concept of user-centered design,” says Hartley, speaking from her San Francisco home near 18F’s West Coast offices. “We put the needs of citizens, residents and the people of first”. As writes by Konkel, F., 2015, 8F’S Hillary Hartley on redesigning government services: put the people first.[https://www.nextgov.com/cio-briefing/ 2015/ 04/ 18fs-hillary-hartley-creating-user-centered-government/107508/](https://www.nextgov.com/cio-briefing/2015/04/18fs-hillary-hartley-creating-user-centered-government/107508/)**