

Reclamation Manual

Directives and Standards

Subject: Professional Registration for Engineers and Architects

Purpose: Specifies Reclamation professional registration requirements.

Authority: OPM Qualification Standards Operating Manual, GS-800; and Safe Drinking Water Act of 1974 and 1986 amendments.

Contact: Diversity and Human Resources Office, D-4000

1. General.

- A. **Requirement.** Registration is an essential requirement for the practice of professional engineering and architecture under the laws of all States, the District of Columbia, U.S. Commonwealths, and U.S. Territories. The practice of engineering and architecture encompasses a broad spectrum of activities that occur in all workplace settings including construction, industry, government, education, and private practice.
 - B. **Responsibility.** In view of the responsibility Reclamation has for the design, construction, operation, and maintenance of water resource projects affecting the property, health, safety, and welfare of the people of the United States, Reclamation chooses to follow the intent of the Model Law of the National Council of Examiners for Engineering and Surveying (NCEES) for the practice of professional engineering and the Model Regulations of the National Council of Architectural Registration Boards (NCARB) for the practice of architecture to provide objective evidence to agency management and the public that the work is performed by engineers and architects of proven competence.
2. **Goals.** To ensure our clients and ourselves that an acceptable and consistent level of competence and professionalism is maintained on our engineered products. To encourage all engineers and architects in Reclamation to pursue continuing professional competency and professional registration.
 3. **Objectives.** To achieve these goals, the provisions of this directive and standard cover all positions which are designated as requiring professional engineer or architect registration. The determination of whether a position requires registration will be made by the position's supervisor, in conjunction with Diversity and Human Resources Office (DHRO), after comparing the duties of the position to the requirements of this directive and standard.
4. **Definitions.**
 - A. **Architect.** Any person who meets the criteria in the *Basic Requirements* section of Office of Personnel Management's (OPM) *Individual Occupational Requirements for GS-808: Architectural Series*.

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- B. **Registered Architect.** Any person who is duly licensed as an architect by one of the 50 States, the District of Columbia, a U.S. Commonwealth, or a U.S. Territory.
- C. **Practice of Architecture.** Rendering or offering to render services in connection with the design and construction, enlargement, or alteration of a building or group of buildings and the space within the site surrounding such buildings, which have as their principal purpose human occupancy or habitation, performing pre-design services, programming, planning, providing designs, specifications, and other technical submissions, the administration of construction contracts, and the coordination of any elements of technical submissions prepared by others.
- D. **Engineer.** Any person who meets the criteria in the *Basic Requirements* section of OPM's *Individual Occupational Requirements for GS-800: All Professional Engineering Positions*.
- E. **Professional Engineer.** Any person who is duly licensed as a professional engineer by one of the 50 States, the District of Columbia, a U.S. Commonwealth, or a U.S. Territory.
- F. **Practice of Engineering.**
- (1) **Service or Creative Work.** Any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, expert testimony, evaluation, planning, design, and design coordination of engineering works and systems, planning the use of land and water, performing engineering surveys and studies, and the review of construction for the purpose of monitoring compliance with drawings and specifications; any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products, or equipment of control systems, communications, mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property of the general public.
 - (2) **Design Coordination.** Design coordination includes the incorporation of those technical submissions prepared by others, including as appropriate and without limitation, consulting engineers, architects, landscape architects, land surveyors, and other professionals working under the direction of the engineer into design products.

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- (3) **Engineering Surveys.** Engineering surveys include all survey activities required to support the sound conception, planning, design, construction, maintenance, and operation of engineered projects, but exclude the surveying of real property for the establishment of land boundaries, rights-of-way, easements, and the dependent or independent surveys or resurveys of the public land survey system.
- G. **Responsible Charge.** Responsible charge shall mean direct control of engineering or architectural work.
- H. **Drawings.** Drawings are documents depicting engineering design or contract requirements affecting structures, facilities, or equipment. Drawings may include contract exhibits or other documents that contain details or installations intended to become a permanent part of structures, facilities, or equipment.
- I. **Signatures Certifying Professional Registration.** Signatures certifying professional engineering or architecture registration shall include the notation: "P.E." or "R.A." immediately after the signed name.
- J. **Signing for Technical Approval.** An individual who signs an engineering or architectural document for technical approval accepts the responsibility for the technical information depicted on the document. The individual assuming this responsibility shall have been in responsible charge and intimately involved in the preparation of the document. The individual must be familiar with the basic data, criteria, and procedures used to develop the results shown in the document. For drawings showing work from several disciplines it is the signing individual's responsibility to ensure all of the technical information prepared by other professions and disciplines and depicted on the document is compatible with the overall design intent. However, technical approval of documents prepared by other professions and disciplines shall be provided by the profession or discipline preparing the documents.
5. **Professional Registration Requirements.** OPM's *Individual Occupational Requirements for GS-800: All Professional Engineering Positions* and *GS-808: All Architecture Series* allow Federal agencies to require registration for certain engineering or architectural positions. Professional registration is essential for performance of the work in positions in Reclamation which include one of the following responsibilities if they involve safeguarding life, health, or property of the general public.
- A. **Design Activities.** The incumbent is in responsible charge of design activities, including the development of technical specifications, plans, and drawings, where such design is associated with new features or existing features where there is a deviation from the intent of the designers operating criteria or the intent of the original design.

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- B. **Technical Approval.** The incumbent signs “technical approval” for drawings, technical documents, memoranda, or construction documents, that may affect the design or its implementation of a new feature or an existing feature where there is a deviation from the intent of the designers operating criteria or the intent of the original design, which are prepared by a process that meets the definitions of paragraphs 4C, 4F, and 4J. Signatures certifying professional engineering or architecture registration shall include the notation: “P.E.” or “R.A.” immediately after the signed name in accordance with paragraph 4I above.
- C. **Construction Activities.** The incumbent is in responsible charge of construction activities which ensures compliance with final specifications, plans, drawings, reports, or other documents prepared by a process that meets the definition of “Practice of Architecture” or “Practice of Engineering” in paragraphs 4C and 4F, respectively.
- D. **Engineering Determinations or Actions.** The incumbent has responsibility for engineering determinations or actions concerning major aspects of operation and maintenance work on dams, tunnels, powerplants, switchyards, bridges, pumping plants, pipelines, canals, roads, and/or associated auxiliary equipment meeting the definition of “Practice of Engineering” in paragraph 4F where there is a deviation from the intent of the designers operating criteria or the intent of the original design.
- E. **Registration Required by Statute.** The incumbent is in responsible charge of work that, under Federal Statute, requires registration. Some Federal laws require Federal agencies to comply with State law. For example, when producing designs for the Safe Drinking Water Act of 1974, Federal design engineers and architects may be required to be registered in the State where the facility is located.
- F. **High-Hazard Facilities.** The incumbent performs periodic facility reviews and/or comprehensive facility reviews for high- and significant-hazard dams. Reclamation Manual, *Review/Examination Program for High- and Significant-Hazard Dams*, FAC 01-07, outlines specific professional registration requirements for these activities. For professional engineering and architectural requirements concerning reviews of other potentially high-hazard facilities refer to other Reclamation Policy, Directives, and Guidelines.
- G. **Coordination.** The incumbent has responsibility for the coordination of engineering or architecture technical determinations concerning major aspects of design and construction work to be performed by engineers or architects in the private sector who are under contract with Reclamation. Registration of the incumbent is essential to maintain the full confidence and respect of the private sector professionals in order to achieve cooperation on critical engineering or architectural issues.

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- H. **Acceptance.** The incumbent is responsible for acceptance of design work performed by private firms not under contract with Reclamation and determines if a detailed design review is needed. This includes, but is not limited to, the review of Architect-Engineer (A-E) design work submitted for Reclamation review under the Small Reclamation Projects Act Loan Program, A-E designs submitted by other Federal agencies for Reclamation review, and A-E designs submitted by private sector sponsors of proposed Federal Energy Regulatory Commission licensed hydroelectric projects to be constructed at existing Reclamation projects.
- I. **Technical Proposal Evaluation Committees.** At least one member of the Technical Proposal Evaluation Committees (TPEC) for construction or A-E work shall be registered.
6. **Position Descriptions and Vacancy Announcements.**
- A. **Position Descriptions.** Positions requiring registration will be identified using the criteria in paragraph 5 above and the reason for the requirement included in the position description.
- B. **Vacancy Announcements.** Registration requirement will be cited in the vacancy announcement and will be used as a selective placement factor for these positions. Where applicable, specific statutes which require professional registration for the position will be cited in the position description.
- (1) The cover sheet (OF 8) of all positions requiring professional engineering registration will contain the following remark in item 24, as appropriate:
- “Professional engineering or architecture registration required by law and/or Reclamation Policy.”
- (2) Since registration will be used as a selective placement factor, it becomes part of the minimum requirements for a position. Applicants must provide a copy of their current registration certification with their resumé.
7. **Exceptions.**
- A. **Non-Registered Employee.** If a position identified as requiring professional registration is occupied by a non-registered employee at the date this directive becomes effective, the registration requirement will be excepted for the duration of the current employee’s incumbency in that position. However, the non-registered employee will not be allowed to sign for technical approval on any drawings or documents requiring a registered professional engineer’s signature. If the non-registered employee should

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vacate the position, registration will be a requirement of the position and subsequent incumbents must meet this requirement.

- B. **Statute.** There are no exceptions where registration is required by statute.
 - C. **State-Recognized Certifying Organization.** Where no State-recognized certifying organization exists for a specialized engineering discipline, certification by a nationally recognized certifying organization may be substituted for professional engineering registration. In these instances, the responsible Director (Regional or Technical Service Center) may approve this exception.
8. **Professional Registration.** Engineers or architects who aspire to positions covered by the requirement for professional registration are encouraged to pursue registration.
- A. **Proof of Registration.** Reclamation human resources offices will require proof of professional engineering or architecture registration upon application or placement in designated positions. Engineers and architects should notify their supervisor when they obtain their initial certification of professional engineering or architect registration and should provide a copy of their initial and subsequent renewal certificates to their servicing human resources office for filing in the employee's Official Personnel Folder.
 - B. **Maintenance of Registration.** If professional registration is a mandatory job requirement, supervisors are responsible for ensuring that employees under their jurisdiction have maintained their professional registration credentials. If the employee fails to maintain the required credentials, this could be a basis for removal from the position.
9. **Professional Registration Expenses.** Reclamation is not authorized by law to reimburse employees for the cost of examinations or renewal of a license. However, Reclamation may reimburse employees for costs associated with review courses and materials to take examinations and continuing education requirements for registration renewal as long as the training is mission related or included in the employee's Individual Development Plan (IDP).
10. **Leave in Connection With Examinations.** Up to 8 hours of excused absence will be allowed for an employee to take the P.E. or R.A. examination.