



GENERAL SERVICES ADMINISTRATION
Federal Supply Service
Authorized Federal Supply Schedule Price List

The Professional Services Schedule (PSS)

Schedule: 00CORP

Category: Professional Engineering Services

871-1 Strategic Planning for Technology Programs/Activities

871-2 Concept Development and Requirements Analysis

871-3 System Design, Engineering and Integration

871-4 Test and Evaluation

871-5 Integrated Logistics Support

871-6 Acquisition and Life Cycle Management

Contract Number: GS-23F-0087J; PS-0024

Contract End Date: August 2, 2019

MPR Associates, Inc.

320 King Street

Alexandria, VA 22314

(703) 519-0200

(703) 519-0224 Fax

Revision 19
Effective Date: January 1, 2016

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Contract Number: GS-23F-0087J; PS-0024

Contract Period: August 3, 1999 through August 2, 2019

Contractor's Name, Address, and Phone Number:

MPR Associates, Inc.

320 King Street

Alexandria, VA 22314

(703)519-0200

(703)519-0224 Fax

Business Size: NAICS Code 541712 – Small
NAICS Code 541711 – Small
NAICS Code 541330 – Large

Up-to-Date Pricing: Listed pricing for the effective date through December 31, 2016.

Terms and Conditions: Refer to GSA award contract document.

On-line access to contract ordering information. For orders exceeding the micro-purchase threshold (\$2,500), the orders should be placed with the Schedule Contractor that presents the best value. Before placing an order, ordering offices should consider reasonably available information about the services offered under MAS contracts by using the *GSA Advantage*.TM on-line shopping service, or by reviewing the catalog/pricelists of at least three Schedule Contractors and selecting the delivery and other options available under the schedule that meets the agency's needs. In selecting the service representing the best value, the ordering office may consider: (i) special features of the service that are required in effective program performance and that are not provided by a comparable service; and (ii) past performance.

CUSTOMER INFORMATION:

1. Table of awarded category number(s):

CATEGORY	DESCRIPTION OF SERVICES (continued)
<p>871-1 /RC Strategic Planning for Technology Programs/Activities</p>	<p>Services include the definition and interpretation of high-level organizational engineering performance requirements such as projects, systems, missions, etc., and the objectives and approaches to their achievement. Typical associated tasks include, but are not limited to, an analysis of mission, program goals and objectives, requirements analysis, organizational performance assessment, special studies and analysis, training, privatization and outsourcing.</p>
<p>871-2 /RC Concept Development and Requirements Analysis</p>	<p>Services include abstract or concept studies and analysis, requirements definition, preliminary planning, the evaluation of alternative technical approaches and associated costs for the development or enhancement of high level general performance specifications of a system, project, mission or activity. Typical associated tasks include, but are not limited to, requirements analysis, cost/cost-performance trade-off analysis, feasibility analysis, regulatory compliance support, technology conceptual designs, training, privatization and outsourcing.</p>
<p>871-3 /RC System Design, Engineering and Integration</p>	<p>Services include the translation of a system (or subsystem, program, project, activity) concept into a preliminary and detailed design (engineering plans and specifications), performing risk identification/analysis/mitigation, traceability, and then integrating the various components to produce a working prototype or model of the system. Typical associated tasks include, but are not limited to, computer-aided design, design studies and analysis, high level detailed specification preparation, configuration management and document control, fabrication, assembly and simulation, modeling, training, privatization and outsourcing.</p>
<p>871-4 /RC Test and Evaluation</p>	<p>Services include the application of various techniques demonstrating that a prototype system (subsystem, program, project or activity) performs in accordance with the objectives outlined in the original design. Typical associated tasks include, but are not limited to, testing of a prototype and first article(s) testing, environmental testing, independent verification and validation, reverse engineering, simulation and modeling (to test the feasibility of a concept), system safety, quality assurance, physical testing of the product or system, training, privatization and outsourcing.</p>
<p>871-5 /RC Integrated Logistics Support</p>	<p>Services include the analysis, planning and detailed design of all engineering specific logistics support including material goods, personnel, and operational maintenance and repair of systems throughout their life cycles. Typical associated tasks include, but are not limited to ergonomic/human performance analysis, feasibility analysis, logistics planning, requirements determination, policy standards/procedures development, long-term reliability and maintainability, training, privatization and outsourcing.</p>

CATEGORY	DESCRIPTION OF SERVICES (continued)
871-6 /RC Acquisition and Life Cycle Management	Services include planning, budgetary, contract and systems/program management functions required to procure and/or produce, render operational and provide life cycle support (maintenance, repair, supplies, and engineering specific logistics) to technology-based systems, activities, subsystems, projects, etc. Typical associated tasks include, but are not limited to, operation and maintenance, program/project management, technology transfer/insertion, training, privatization and outsourcing.

2. Maximum order:

The maximum dollar value per order for Professional Services is \$1,000,000. A delivery order that exceeds the maximum order may be placed in accordance with FAR 8.404.

3. Minimum order:

The minimum dollar value per order to be issued is \$100.

4. Geographic coverage (delivery area):

Worldwide

5. Point of production:

Alexandria, Virginia (USA)

6. Discount from list prices or statement of net price:

Prices shown are net prices which include a Government discount.

7. Other discounts.

For task orders with a value between \$750,000 and \$1,500,000, a 1% discount in the Government hourly labor rate will be applied. For task orders with a value over \$1,500,000, a 2% discount in the Government hourly labor rate will be applied.

8. Prompt payment terms:

Net 30 days. No additional discount.

- 9a. Notification that Government purchase cards are accepted below the micro-purchase threshold:

Government purchase cards will be accepted for orders less than or equal to the micro-purchase threshold of \$2,500.

- 9b. Notification whether Government purchase cards are accepted or not accepted above the micro-purchase threshold:

Government purchase cards will not be accepted for orders greater than the micro-purchase threshold of \$2,500.

10. Ordering address: MPR Associates, Inc.
320 King Street
Alexandria, VA 22314

11. Payment address: MPR Associates, Inc.
320 King Street
Alexandria, VA 22314

12. Export packing charges, if applicable:

Not applicable to professional engineering services.

13. Terms and conditions of Government purchase card acceptance (any thresholds above the micro-purchase level):

Terms and conditions for acceptance will be in accordance with Government purchase card requirements and regulations.

14. Year 2000(Y2K) compliant:

“Year 2000 compliant” means technology that accurately processes date/time data from and between the twentieth and twenty-first centuries, and leap year calculations. The Contractor warrants that each hardware, software, and firmware product delivered under this contract shall be able to accurately process data from and between the twentieth and twenty-first centuries, including leap year calculations, when used in accordance with the product documentation provided by the Contractor, provided that all listed and unlisted products used in combination with such listed products properly exchange date data with it. The duration of this warranty and the remedies available to the Government shall be as defined in, and subject to, the terms and conditions of the Contractor’s standard commercial warranty.

15. Environmental attributes, e.g., recycled content, energy efficiency, and/or reduced pollutants:

Not applicable to professional engineering services.

16. Data Universal Number System (DUNS) number:

DUNS 047271358

17. Notification regarding registration in Central Contractor Registration (CCR) database:

MPR Associates, Inc. is registered in the CCR database.

18. Service Contract Act (SCA) Applicability Statement:

The Service Contract Act (SCA) is applicable to this contract as it applies to the entire 00CORP: Professional Services Schedule and all services provided. While no specific labor categories have been identified as being subject to SCA due to exemptions for professional employees (FAR 22.1101, 22.1102 and 29 CFR 541.300), this contract still maintains the provisions and protections for SCA eligible labor categories. If and/or when the Contractor adds SCA labor categories/employees to the contract through the modification process, the Contractor must inform the Contracting Officer and establish a SCA matrix identifying the GSA labor category titles, the occupational code, SCA labor category titles and the applicable WD number. Failure to do so may result in cancellation of the contract.

19. Point of Contact – Contract Administrator:

John A. Hillaert
(703) 519-0200
jhillaert@mpr.com

DATA TO ASSIST GOVERNMENT ORDERING OFFICE COMPLETION OF STANDARD FORM 279:

Block 9: G - Order/Modification under Federal Schedule

Block 16: DUNS Number 047271358

Block 31: Woman-Owner Small Business - No

Block 36: Contractor's TIN: 52-0804505

GSA Schedule Pricing through December 31, 2016

Category: 871-1, 871-2, 871-3, 871-4, 871-5, and 871-6

- Notes:** 1. Same pricing and labor categories apply to all Categories.
 2. Applicable PED categories include Chemical, Civil, Electrical and Mechanical

Labor Category	Government Hourly Rate (\$) through 31 Dec, 2016
Engineering Aide	39.92
Analyst I	56.24
Technical Aide / Analyst II	65.32
Designer	93.76
Engineer I	72.36
Engineer II / Senior Research Analyst	90.48
Engineer III	130.56
Senior Engineer I	142.12
Senior Engineer II	153.48
Lead Engineer I	168.36
Lead Engineer II	187.28
Supervisory Engineer	206.56
Executive Engineer	227.64
Associate	246.64
Senior Associate	253.92
Principal	265.60

Other Direct Costs: Other direct costs with the exception of travel pertaining to task orders are negotiated at the task order level. Travel related expenses are billed at cost and in compliance with government travel regulations.

Discounts: For task orders with a value over \$750,000, a 1% discount in the Government hourly labor rate will be applied. For task orders with a value over \$1,500,000, a 2% discount in the Government hourly labor rate will be applied.

Other: Three-year extended warrantee on all services

Professional Services

MPR Associates, Inc. is a multi-disciplinary engineering firm founded in 1964. The company was founded to provide professional services meeting the highest level of engineering quality. Today, with approximately 200 engineers, scientists and technicians from a broad range of technical disciplines, the firm serves a diverse group of commercial, government, and industrial clients throughout the world. (For further background about the engineering services of MPR Associates, please refer to <http://www.mpr.com>.)

MPR has a reputation as a top-quality, highly technical engineering organization. Technical services are tailored specifically to each client's needs, ranging from strategic planning, engineering design, analysis, operation, and maintenance, to problem solving, technical assessments and root cause analyses, always consistent with the firm's strong professional standards and ethics. MPR's closely integrated, interdisciplinary approach delivers results that are timely, creative, and cost-effective; results that keep satisfied clients coming back. In fact, virtually every client served in MPR's earliest years remains with the firm today.

MPR's facilities are well equipped to provide a full range of engineering and support services including an in-house technical library with more than 100,000 volumes and computerized search and retrieval systems, in-house testing laboratory facilities, and a variety of conference and meeting facilities. MPR's corporate headquarter location in Alexandria, VA is easily accessible for both U.S. and international clients, and is close to major universities, government agencies, institutions, and regulatory bodies.

Corporate Experience in Professional Engineering

MPR provides responsive professional engineering support services to a diverse mixture of industry and government. The company's interdisciplinary team strategy assures that the necessary expertise and experience are applied to each project, whether original design, technical problem solving, or retrofit engineering. Over the company's 50-year history, MPR has provided significant engineering contributions to commercial clients in a wide variety of fields, including power generation, nuclear engineering, marine engineering, general construction, aerospace, petrochemical, pharmaceutical, medical research and many, many others. A few examples of the diversity of MPR engineering projects are listed below.

- *Prepared conceptual designs of particulate recycle systems for a coal gasification system.*
- *Developed mathematical computer models of complex, dynamic transients.*
- *Prepared Quality Assurance and Design Control programs for industrial clients.*
- *Led the team that made first inspection of Three Mile Island's damaged nuclear reactor core.*
- *Conducted training of personnel in nuclear quality assurance reviews and audits.*

- *Developed material and weld specifications for petrochemical industry clients.*
- *Developed the design and specifications for the first American industrial tower crane.*
- *Performed dynamic analysis of advanced military tracked vehicles.*
- *Provided member of the U.S. three-man team that inspected the damaged Chernobyl nuclear plant.*
- *Conducted shock analysis of aircraft instrumentation packages and mountings.*
- *Analyzed aerospace structures.*
- *Provided consulting to the National Institutes of Health on materials for artificial organs, including the first artificial heart.*
- *Designed and performed fabrication review of a 108-inch optical telescope.*
- *Performed studies of uranium mining methods.*
- *Developed conceptual designs and patents for the world's first precision ultrasonic flowmeter.*
- *Designed and analyzed special high pressure vessels for industrial and military purposes.*
- *Designed and developed drug production facility for pharmaceutical manufacturer.*

The key to MPR's proficiency in the field of engineering is the quality and experience of our personnel. Each year MPR interviews and recruits exemplary engineering graduates from across the country, selecting only the most qualified graduates for employment. As a gauge of the capability of MPR's engineers, approximately one-half of MPR's engineers have advanced degrees (MS or higher), professional engineer's licenses, or both. With respect to experience, over half of the MPR engineering staff has more than 20 years experience, and over thirty percent have greater than 30 years experience. This combination of personnel skills, technical capability and experience is unique in the industry and sets MPR apart as a company dedicated to high-quality professional engineering services.

871-1 *Strategic Planning for Technology Programs/Activities*

Services include the definition and interpretation of high-level organizational engineering performance requirements such as projects, systems, missions, etc., and the objectives and approaches to their achievement. Typical associated tasks include, but are not limited to, an analysis of mission, program goals and objectives, requirements analysis, organizational performance assessment, special studies and analysis, training, privatization and outsourcing.

Our experience includes analyses to define top level requirements for projects and systems and first-of-a-kind engineering to integrate top level approaches into definitions of performance requirements. MPR has developed top level objectives which have been used as the basic development objective for numerous R&D programs.

871-2 *Concept Development and Requirements Analysis*

Services include abstract or concept studies and analysis, requirements definition, preliminary planning, the evaluation of alternative technical approaches and associated costs for the development or enhancement of high level general performance specifications of a system, project,

mission or activity. Typical associated tasks include, but are not limited to, requirements analysis, cost/cost-performance trade-off analysis, feasibility analysis, regulatory compliance support, technology conceptual designs, training, privatization and outsourcing.

MPR's work has involved analyzing the characteristics of equipment and systems, reviews of the functional requirements for use, and assessments of safety and regulatory standards. From these analyses, MPR has defined performance requirements, requirements for regulatory compliance, and design constraints. MPR has evaluated basic technologies to assess the feasibility of meeting requirements and constraints and to identify alternative technical approaches to meeting requirements. Promising alternatives have been evaluated in depth with a variety of design analyses, tests and cost trade-off assessments. Implementation approaches and program plans have been prepared.

871-3 System Design, Engineering and Integration

Services include the translation of a system (or subsystem, program, project, activity) concept into a preliminary and detailed design (engineering plans and specifications), performing risk identification/analysis/mitigation, traceability, and then integrating the various components to produce a working prototype or model of the system. Typical associated tasks include, but are not limited to, computer-aided design, design studies and analysis, high level detailed specification preparation, configuration management and document control, fabrication, assembly and simulation, modeling, training, privatization and outsourcing.

One of MPR's core strengths is in the translation of a concept into a preliminary and detailed design, conducting risk analysis, and integrating the results into a working prototype or model. We routinely use computer-aided design methods for our work, and sometimes actually develop the computation methods based on engineering and scientific principles. We perform design studies and analysis, detailed specification preparation, configuration management and document control as part of our routine business. We are sometimes involved with fabrication and assembly, and with simulation and modeling, particularly on complex dynamic analysis projects. We have conducted training at various levels, including broad-based engineering principles training of professional engineers, specific technical training for complex or highly technical projects, as well as a variety of operator training and quality assurance training programs.

871-4 Test and Evaluation

Services include the application of various techniques demonstrating that a prototype system (subsystem, program, project or activity) performs in accordance with the objectives outlined in the original design. Typical associated tasks include, but are not limited to, testing of a prototype and first article(s) testing, environmental testing, independent verification and validation, reverse engineering, simulation and modeling (to test the feasibility of a concept), system safety, quality assurance, physical testing of the product or system, training, privatization and outsourcing.

MPR has directed numerous large scale and small scale test and evaluation programs. Some of these programs have been used to demonstrate new design concepts and/or first articles. Many of these tests have involved environmental testing to assess areas such as seismic response, shock,

multi-frequency vibration, temperature, fire exposure, etc. for specific engineered components as well as engineered systems. Often our tests are used to perform a design validation or a verification of a simulation or modeling result for an engineered system. We have performed significant safety testing and our work has included assessments of human factors. We also have experience in the performance of human subject testing.

871-5 Integrated Logistics Support

Services include the analysis, planning and detailed design of all engineering specific logistics support including material goods, personnel, and operational maintenance and repair of systems throughout their life cycles. Typical associated tasks include, but are not limited to, ergonomic/human performance analysis, feasibility analysis, logistics planning, requirements determination, policy standards/procedures development, long-term reliability and maintainability, training, privatization and outsourcing.

MPR's experience with integrated logistics support tends to concentrate in the technical aspects, such as analysis and design. We have developed large scale programs associated with life cycle maintenance and repair, and we were responsible for policy development of the very earliest concepts of conditioned based maintenance approaches in the late 1960's and early 1970's. Our engineering concepts were used by the Navy as the technical basis for extending the overhaul schedule for nuclear submarines and surface ships. We have performed feasibility analyses and policy assessments to support technical justification for such programs. We have also carried out detailed reliability and maintainability assessments of equipment and systems and developed standards and procedures for logistics support.

871-6 Acquisition and Life Cycle Management

Services include planning, budgetary, contract and systems/program management functions required to procure and/or produce, render operational and provide life cycle support (maintenance, repair, supplies, engineering specific logistics) to technology-based systems, activities, subsystems, projects, etc. Typical associated tasks include, but are not limited to, operation and maintenance, program/project management, technology transfer/insertion, training, privatization and outsourcing.

MPR Associates has provided program management and technical oversight support for acquisition and life cycle management for various projects. Our work has included:

- Evaluation of technology options,
- Development and evaluation of strategies for procurement of services, including commercialization of the mission,
- Selection of government and commercial sites on which to accomplish the mission (including consideration of life cycle maintenance and capital improvement issues, logistics support and coordination of multiple site activities),

- Preparation of test plans,
- Quality Assurance planning,
- Development and review of project implementation schedules and cost estimates,
- Preparation of technical specifications and bid evaluation criteria to support the procurement efforts,
- Direction of technical review teams to support the source selection official in the evaluation of bids and award of the contract, and
- Continuing participation in design reviews and resolution of program technical concerns.

Our work has resulted in contract structures invoking a unique partnership of public and private sector entities, the application of advanced technologies to further United States security interests, and timely award of large multi-million dollar, complex, highly visible and controversial government contracts.

MPR Labor Category Descriptions

Principal

Category Description:

Experienced, highly-skilled professionals, who may also be corporate officers. Responsible for managing engineering, technology and business activities. Capable of directing technically sophisticated programs that involve the successful management of teams composed of engineers, scientists, and management professionals and business or government leaders. Strong technical skills in engineering and science. Strong, broad-based skills in business administration, program management and technology transfer.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 25 years

Average Experience: 35 years

Responsibilities and Experience:

Responsible for directing work for large and complex engineering programs requiring specialized knowledge. For the government, this includes programs for nuclear energy development, nuclear plant construction, nuclear reactor design, nuclear fuel fabrication and mixed-oxide fuel conversion, renewable energy, as well as Navy ship safety and survivability. Personnel in this category maintain a high degree of creativity, foresight, and judgment with respect to complex technical and management issues and provide technical, managerial and administrative direction and advice on organization-wide efforts. These are very senior members of the organization with more than 20 years experience with supervision and management of senior professional staffs. Personnel in the category serve on U.S. national advisory committees, including leadership roles on the National Academy of Engineering. Personnel in the category also serve in senior leadership roles in government and industry, including Directors of Engineering for the U.S. commercial nuclear power industry and as engineering/science advisors for Federal government agencies. These individuals demonstrate advanced written and oral communication skills. Many personnel in the category have advanced security clearances.

Senior Associate

Category Description:

Experienced, highly-skilled professionals, with many years of experience and having unique technical and management responsibilities for leading major engineering and business activities. Capable of successful leadership of major projects that involve engineering and management teams composed of engineers, scientists, and management professionals. Fully capable of directing programs and projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex systems and solutions. Strong technical skills in engineering and science. Strong business skills in program management, project management, and technology transfer.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 25 years

Average Experience: 35 years

Responsibilities and Experience:

Responsible for direction and management of major engineering programs requiring specialized technical knowledge and experience. Perform as high-level subject matter expert in engineering systems and applied technology, program management, and matters related to regulatory compliance. For the government, this includes programs for nuclear energy development, nuclear plant construction, nuclear reactor design, nuclear fuel fabrication and mixed-oxide fuel conversion, renewable energy, as well as Navy ship safety and survivability. Advanced experience in Federal Nuclear Quality Assurance and Safety and Federal Food and Drug Administration Regulatory Compliance. Personnel in this category are proficient and credible to testify as subject matter experts for commercial and government clients. These

are very senior members of the organization with more than 20 years experience with supervision and management of senior professional staffs. Personnel in this category are responsible for overall management, control and reporting of multiple programs or business areas. Most have advanced degrees in engineering or science, or equivalent. Personnel in this category lead senior level independent review teams for the Department of Energy for assessments of major capital projects earmarked with values in the range of one billion to 20 billion dollars each. Personnel in this category lead engineering design projects to aide Federal Project Directors from the Department of Energy, the Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies. Personnel in the category serve in senior leadership roles in government and industry, including Engineering Managers for the U.S. commercial nuclear power industry and engineering/science advisors for Federal government agencies. These individuals demonstrate advanced written and oral communication skills. Many personnel in this category have advanced security clearances.

Associate

Category Description:

Senior engineering professionals with significant experience, having unique technical and management responsibilities for directing engineering and business activities. Capable of successful leadership of complex projects that involve engineering and management teams composed of engineers, scientists, and management professionals. Fully capable of directing large projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex systems and solutions. Strong technical skills in engineering and science. Strong business skills in project management and technology transfer.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 20 years

Average Experience: 30 years

Responsibilities and Experience:

Responsible for direction and management of large engineering projects requiring specialized technical knowledge and experience. Provide highly technical or specialized guidance and leadership for nuclear power, structural analysis, material performance, instrumentation and control, human factors engineering, systems operation, training, and system dynamics. Perform as high-level subject matter expert in engineering systems and applied technology, program management, and matters related to regulatory compliance. For the government, this includes programs for nuclear energy development, nuclear plant construction, nuclear reactor design, nuclear fuel fabrication and mixed-oxide fuel conversion, renewable energy, as well as Navy ship safety and survivability. Personnel in the category have advanced experience in Federal Nuclear Quality Assurance and Safety and/or Federal Food and Drug Administration Regulatory Compliance. Personnel in this category are proficient and credible to testify as subject matter experts for commercial and government clients. These are very senior members of the organization with more than 15 years experience with supervision and management of senior professional staffs. Personnel in this category are responsible for overall management, control and reporting of multiple projects. Most have advanced degrees in engineering or science, or equivalent. Personnel in this category lead or participate in senior level independent review teams for the Department of Energy for assessments of major capital projects with budgeted values in excess of one billion dollars each. Personnel in this category lead or participate in engineering design projects to aide Federal Project Directors from the Department of Energy, the Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies for complex programs. Personnel in the category serve in senior leadership roles in government and industry, including Engineering Managers for the U.S. commercial nuclear power industry and as engineering/science advisors for Federal government agencies. These individuals demonstrate advanced written and oral communication skills. Many personnel in the category have advanced security clearances.

Executive Engineer

Category Description:

Senior technical leaders with significant experience, having technical and project management responsibilities for supporting engineering activities. Capable of successful leadership of projects that involve engineering and management teams composed of engineers, scientists, and management professionals. Fully capable of directing projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex engineered systems and solutions. Strong technical skills in engineering and science.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 15 years

Average Experience: 30 years

Responsibilities and Experience:

Responsible for direction and oversight of engineering projects requiring understanding of complex technical issues. Provide technical or specialized guidance in nuclear energy, structural analysis, material performance, instrumentation and control, human factors engineering, systems operation, training, and system dynamics. Perform as subject matter expert in engineering systems and applied technology, program management, or matters related to regulatory compliance. Personnel in the category have advanced experience in Federal Nuclear Quality Assurance and Safety and/or Federal Food and Drug Administration Regulatory Compliance. These are senior members of the organization with more than 10 years experience with supervision and management of senior professional staffs. Personnel in this category are responsible for all aspects of project performance including technical, contractual, administrative and financial management. Most have advanced degrees in engineering or science, or equivalent. Personnel in this category participate in senior level independent review teams for the Department of Energy for assessments of major capital projects with budgeted values in excess of one billion dollars each. Personnel in this category participate in engineering design projects to aide Federal project directors from the Department of Energy, the Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies for complex programs. Many demonstrate advanced written and oral communication skills. Many personnel in the category have advanced security clearances.

Supervisory Engineer

Category Description: Experienced and competent engineers and scientists. Technical leaders having project management responsibilities for conducting engineering activities. Capable of successful leadership of projects that involve engineering and management teams composed of engineers, scientists, and management professionals. Capable of managing projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex engineered systems and solutions. Strong technical skills in engineering and science.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 12 years

Average Experience: 25 years

Responsibilities and Experience:

Responsible for performing work on projects requiring understanding of complex technical engineering issues. Directly responsible for day-to-day project performance and supervision of junior technical staff. Carry out engineering activities in nuclear energy, structural analysis, material performance, instrumentation and control, human factors engineering, systems operation, training, and system dynamics. Performs as subject matter expert in engineering systems and applied technology, program management, or matters related to regulatory compliance. Personnel in the category have advanced experience in Federal Nuclear Quality Assurance and Safety and/or Federal Food and Drug Administration

Regulatory Compliance. These are relatively senior members of the organization who routinely work on complex technology projects. Approximately half have advanced degrees in engineering or science, or equivalent. Personnel in this category participate in independent review teams for the Department of Energy for assessments of major capital projects with budgeted values in excess of one billion dollars each. Personnel in this category participate in engineering design projects to aide Federal project directors from the Department of Energy, the Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies for complex programs. Many personnel in the category have advanced security clearances.

Lead Engineer II

Category Description: Experienced and competent engineers and scientists with strong technical skills in engineering and science.. Engineering project leader having responsibilities for conducting routine project execution activities. Capable of successful project leadership of teams composed of engineers, scientists, and management professionals. Capable of managing junior engineers in projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex engineered systems and solutions.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 10 years

Average Experience: 15 years

Responsibilities and Experience:

Responsible for planning, leading and conducting work on projects that require understanding of complex technical engineering issues. Provide guidance in coordinating tasks and ensuring technical adequacy of the product. Responsible for project technical performance and successful completion. Maintain routine and frequent client contact. Responsible for day-to-day project performance and supervision of junior technical staff. Carries out engineering activities in nuclear energy, structural analysis, material performance, instrumentation and control, human factors engineering, systems operation, training, and system dynamics. Performs as subject matter expert in engineering systems and applied technology, program management, or matters related to regulatory compliance. Personnel in the category have significant experience in Federal Nuclear Quality Assurance and Safety and/or Federal Food and Drug Administration Regulatory Compliance. These are mid-level to relatively senior-level members of the organization who routinely work on complex technology projects. Most have advanced degrees in engineering or science, or equivalent. Personnel in this category participate in independent review teams for the Department of Energy for assessments of major capital projects with budgeted values in excess of one billion dollars each. Personnel in this category participate in engineering design projects to aide Federal project directors from the Department of Energy, the Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies for complex programs. Many personnel in the category have security clearances.

Lead Engineer I

Category Description:

Experienced and competent engineers and scientists with strong technical skills in engineering and science. Junior-level engineering project leader having responsibilities for conducting routine project execution activities. Capable of successful project leadership of teams composed of engineers, scientists, and management professionals. Capable of managing other engineers in projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex engineered systems.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 8 years

Average Experience: 10 years

Responsibilities and Experience:

Responsible for leading and conducting work on projects that require understanding of complex technical engineering issues. Provide guidance in coordinating tasks and ensuring technical adequacy of the product. Responsible for project technical performance and successful completion. Maintain routine and frequent client contact. Responsible for day-to-day project performance and supervision of staff. Carries out engineering activities in nuclear energy, structural analysis, material performance, instrumentation and control, human factors engineering, systems operation, training, and system dynamics. Personnel in the category have experience in Federal Nuclear Quality Assurance and Safety and/or Federal Food and Drug Administration Regulatory Compliance. These are mid-level members of the organization who routinely work on complex technology projects. Some have advanced degrees in engineering or science, or equivalent. Personnel in this category participate in engineering design projects to aide Federal project directors from the Department of Energy, the Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies for complex programs. Many personnel in the category have security clearances.

Senior Engineer II

Category Description: Competent engineers and scientists with strong technical skills in engineering and science. Mid-level professional engineering staff member having responsibilities for conducting more complex project execution activities. Capable of successful project execution of engineering activities under limited direction of more senior professional staff. Capable of directing other engineers in projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex engineered systems.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 6 years

Average Experience: 9 years

Responsibilities and Experience:

Responsible for conducting work on projects that require understanding of complex technical engineering issues. Conducts engineering design, analysis, prototype testing, fabrication, specification development, in-field testing, operations and support of components, structures, systems and their controls. Performs evaluation of system alternatives. Responsible for project technical performance and successful completion. Carries out engineering activities in nuclear energy, structural analysis, material performance, instrumentation and control, human factors engineering, systems operation, training, and system dynamics. Personnel in the category have basic experience in Federal Nuclear Quality Assurance and Safety and/or Federal Food and Drug Administration Regulatory Compliance. Approximately half have advanced degrees in engineering or science, or equivalent. Personnel in this category participate in engineering design projects to aide Federal project directors from the Department of Energy, the Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies for complex programs. Many personnel in the category have security clearances.

Senior Engineer I

Category Description: Competent engineers and scientists with strong technical skills in engineering and science. Junior to Mid-level professional engineering staff member having responsibilities for conducting routine project execution activities. Capable of successful project execution of engineering activities under the direction of more senior professional staff. Capable of directing other engineers in projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex engineered systems.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 4 years

Average Experience: 6 years

Responsibilities and Experience:

Responsible for conducting work on projects that require understanding of complex technical engineering issues. Conducts engineering design, analysis, prototype testing, fabrication, specification development, in-field testing, operations and support of components, structures, systems and their controls. Performs evaluation of system alternatives. Responsible for project technical performance and successful completion. Carries out engineering activities in nuclear energy, structural analysis, material performance, instrumentation and control, human factors engineering, systems operation, training, and system dynamics. Personnel in the category have basic experience in Federal Nuclear Quality Assurance and Safety and/or Federal Food and Drug Administration Regulatory Compliance. These are individuals who routinely work on complex technology projects. Approximately half have advanced degrees in engineering or science, or equivalent. Personnel in this category participate in engineering design projects to aide Federal project directors from the Department of Energy, the Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies for complex programs. Many personnel in the category have security clearances.

Engineer III

Category Description:

Competent engineers or scientists with limited experience but exceptional academic achievement, including graduating with high academic honors, graduate study, or other specialized work including qualified nuclear power training by the military. Junior-level professional engineering staff member having responsibilities for conducting routine project execution activities. Capable of successful project execution of engineering activities under the direction of more senior professional staff. Capable of working in teams with other engineers in projects that involve analyzing, designing, developing, integrating, testing, and maintaining complex engineered systems. Some personnel in the category have security clearances.

Minimum Education: BS in engineering or equivalent

Minimum Experience: 2 years

Average Experience: 4 years

Responsibilities and Experience:

Responsible for conducting work on projects that require understanding of complex technical engineering issues. Conducts engineering design, analysis, prototype testing, fabrication, specification development, in-field testing, operations and support of components, structures, systems and their controls. Performs evaluation of system alternatives. Responsible for project technical performance and successful completion. Carries out engineering activities in nuclear energy, structural analysis, material performance, instrumentation and control, human factors engineering, systems operation, training, and system dynamics. Personnel in the category have basic experience in Federal Nuclear Quality Assurance and Safety and/or Federal Food and Drug Administration Regulatory Compliance. Approximately half have advanced degrees in engineering or science, or equivalent. Personnel in this category participate in engineering design projects to aide Federal project directors from the Department of Energy, the

Department of Defense, and the Department of Homeland Security in making policy decisions and setting technical and financial management strategies for complex programs.

Engineer II / Senior Research Analyst

Category Description: Experienced specialists and professionals with college degree or equivalent.

Minimum Education: Bachelor's degree or equivalent

Minimum Experience: 2 years

Average Experience: 22 years

Responsibilities and Experience:

Participates in analysis, prototype testing, fabrication, specification development, in-field testing, operations and support of engineering projects, including conducting literature reviews and subject matter research. These are members of the technical staff with experience in specialty areas such as analysis, design, testing, or research of engineering and technology-related issues and nuclear energy. Some have advanced degrees.

Engineer I

Category Description: Specialists with exceptional technical skills in computer technology or other areas.

Minimum Education: High school graduate

Minimum Experience: 5 years

Average Experience: 20 years

Responsibilities and Experience: Participates in analysis, prototype testing, fabrication, specification development, in-field testing, operations and support of engineering projects, including conducting literature reviews and subject matter research. These are members of the technical staff with experience and exceptional skills in specialty areas of computer science, technology, or related disciplines.

Designer

Category Description: Designers and technical graphic artists with several years experience.

Minimum Education: High school graduate

Minimum Experience: 5 years

Average Experience: 20 years

Responsibilities and Experience:

Participates in design, analysis, prototype testing, fabrication, specification development, in-field testing, operations and support of engineering projects. Work encompasses electrical, electronic, mechanical, structural and nuclear disciplines. Includes some computations, field measurements and computer-aided design. These are members of the technical staff with experience with machine design, graphic representations, computations, and CAD.

Technical Aide / Analyst II

Category Description: Specialists providing support to the engineers in such areas as computer programs, testing, analysis, technical research and development.

Minimum Education: High school graduate

Minimum Experience: 5 years

Average Experience: less than 20 years

Responsibilities and Experience:

Provides support to the engineers in a variety of technician and research assistant capacities. These are members of the staff providing technical support in such areas as computer programming, testing and scientific literature reviews/research.

Analyst I

Category Description:

Specialists providing support to the engineers in such areas as analysis and technical research and development.

Minimum Education: High school graduate

Minimum Experience: 4 years

Average Experience: 15 years

Responsibilities and Experience:

Provides support to the engineers in a variety of technician and research assistant capacities. These are members of the staff providing project support in such areas as analysis and technical subject matter research and development.

Engineering Aide

Category Description:

Part-time or co-op engineering graduate or undergraduate students, doing well-defined tasks under close supervision.

Minimum Education: High school graduate

Minimum Experience: Entry level

Responsibilities and Experience:

Provides technical support to the engineers in a variety of technician roles and research assistant capacities. These are often engineering students.

Education Equivalency Table

Degree	Equivalence
Associate Degree (AS, AA)	none
Bachelors – General / Arts	AA plus 8 years
Bachelors – Engineering / Science	AS plus 8 years
Masters – Engineering / Science	BS plus 5 years
Doctorate – Engineering / Science	BS plus 10 years