

Science and Engineering Technical

ELEMENT 1. SCIENTIFIC & TECHNICAL PROBLEM SOLVING

Instructions: Assign a value (0 - 73) which best represents employee's contributions in the overall element. Descriptors define contributions at high end of each level.

DISCRIMINATORS				
Level	Point Range	Scope of Project	Scientific/Technical Complexity/Creativity	Level of Oversight
I	0 - 21	Performs specific procedures which are typically a segment of a project of broader scope. Work affects the accuracy, reliability or acceptability of further processes. Resolves recurring routine problems independently. Operates and adjusts varied equipment to perform standardized tests or operations involved in testing, data analysis and presentation.	Performs duties that involve related and established steps, processes or methods. Determines what needs to be done by choosing among a few different but easily recognizable situations. Recognizes readily apparent errors requiring limited knowledge of the subject matter. Uses judgment in locating and selecting most appropriate procedures, making minor deviations to adapt the guidelines to specific cases.	Receives routine assignments in terms of objectives to be achieved and without explicit instructions as to work methods, if standard work methods can be used. Resolves routine technical problems in terms of previous experience without reference to supervisor. Explicit instructions for solving technical problems involving unfamiliar conditions, methods, or concepts are provided by the supervisor.
II	18 - 39	Independently plans and conducts a block of work which is a complete and conventional project of relatively limited scope or a portion of a large and more diverse project. Work affects the design or operation of systems, equipment, testing operations, research conclusions, or similar activities.	Applies a practical knowledge of technical methods, principles and practices within a narrow area of research/development program/project to assignments involved with design and planning of moderately complex, well-precedented projects. Assignments require analyses of several possible courses of action, techniques and/or designs; and selection of most appropriate. Considers precedents in carrying out work and makes some adaptations of previous plans and techniques.	Receives guidance and instructions in dealing with unfamiliar practices and problems. On familiar types of assignments, completes work without explicit instructions as to work methods and precedents. Significant deviations from guides requires approval.
III	36 - 47	Independently plans and conducts a block of work which is a complete and conventional project of relatively limited scope or a portion of a large and more diverse project. Work affects the design or operation of systems, equipment, testing operations, research conclusions, or similar activities.	Applies a practical knowledge of a wide range of different but established technical methods, principles and practices within a narrow area of research/development program/project to design and planning of difficult but well-precedented projects. Assignments require study, analysis, and consideration of several possible courses of action, techniques and/or designs; and selection of most appropriate. Considers precedents in carrying out work which may be conflicting or are not directly applicable. Adapts previous plans and techniques to fit new situations.	Supervisor outlines overall requirements, providing information on any related work being performed and furnishing general instructions regarding objectives, time limitations, priorities, and similar issues. Plans and carries out successive steps and handles problems and deviations in the work assignments in accordance with accepted practices, policy or instructions. Completed work is evaluated for technical soundness, appropriateness, and conformity to policy and requirements.

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ACCEPTABLE PERFORMANCE STANDARDS: With minor exceptions, work is performed in a timely, efficient, and cooperative manner; work products demonstrate completion of established objectives for the assignment, adherence to instructions and guidance of supervisor and team leader, and acceptable quality as deemed by supervisor.

SPECIFIC OBJECTIVES, TASKINGS, STANDARDS, AND/OR EXAMPLES MAY BE COMMUNICATED TO EMPLOYEES USING THE CCS FORM OR OTHER APPROPRIATE MEANS

17 December 1998

Science and Engineering Technical

ELEMENT 1. SCIENTIFIC & TECHNICAL PROBLEM SOLVING Continued

Instructions: Assign a value (0 - 73) which best represents employee's contributions in the overall element. Descriptors define contributions at high end of each level.

DISCRIMINATORS					D E S C R I P T O R S
Level	Point Range	Scope of Project	Scientific/Technical Complexity/Creativity	Level of Oversight	
IV	44 - 59	Establishes criteria; formulates projects; assesses program effectiveness; investigates or analyzes a variety of unusual conditions, problems, or questions in areas which affect a wide range of major activities. Points out areas for investigation or improvement in their area of expertise.	Applies deep and diversified knowledge to atypical or highly difficult assignments. Thoroughly evaluates various alternatives for meeting objectives, considering applicable technical factors as well as related factors, and recommends the best one. Reviews, analyzes and integrates work performed by others and changes in technology as they relate to the possible impact on projects or programs, systems or processes in employee's area of expertise. Assignments are frequently complicated by many operations which equipment or systems must perform, and many variables that must be considered. Precedents are sometimes absent, but more commonly, the relationships of precedents to particular assignments is obscure. Must deal with conflicting issues.	Supervisor outlines requirements, objectives and operational requirements. Technicians must then analyze problems and develop own approaches and work plans; receives little technical advice or guidance; technical decisions and recommendations are usually accepted by higher authority except when policy, program, or budgetary considerations are overriding.	
V	59 - 66	Must plan, organize and direct extensive development efforts including broad programs of applied research and development. Uses judgment and ingenuity in converting overall objectives into programs or policies for others to use. Must adjust broad activities carried out to the latest advances in technology and to the changing program needs of an area of research/development.	Provides expert advisory services and leadership for broad and complex programs that advance the state of the art. Programs span various disciplines, are greatly affected by advances in technology and are characterized by highly complex problems for which precedents are lacking in areas critical to the overall effort. Work requires originating new techniques, establishing criteria, or developing new information. Research/development approach is not easily determined and considerable modification of existing techniques is required. Produces documentable modification of existing theories or existing technology.	Supervisor outlines only broad policy and operational objectives and requirements. Technician determines the general research/development approach. Technical supervision is limited to reviewing broad hypotheses and overall approach. Interpretations made by the technician are reviewed but are generally accepted as technically accurate. Supervisor is kept informed and only broad changes in the direction of the work require clearance.	

ACCEPTABLE PERFORMANCE STANDARDS: With minor exceptions, work is performed in a timely, efficient, and cooperative manner; work products demonstrate completion of established objectives for the assignment, adherence to instructions and guidance of supervisor and team leader, and acceptable quality as deemed by supervisor.

SPECIFIC OBJECTIVES, TASKINGS, STANDARDS, AND/OR EXAMPLES MAY BE COMMUNICATED TO EMPLOYEES USING THE CCS FORM OR OTHER APPROPRIATE MEANS

17 December 1998

Science and Engineering Technical

ELEMENT 2. COOPERATION/CUSTOMER RELATIONS/SUPERVISION

Instructions: Assign a value (0 - 73) which best represents employee's contributions in the overall element. Descriptors define contributions at high end of each level.

DISCRIMINATORS			
Level	Point Range	Teamwork/Customer Relations	Supervision/Subordinate Development (consider only if employee is a supervisor)
I	0 - 21	Provides work product which affects the accuracy, reliability, or acceptability of assignments, projects or equipment of broader scope. Independently carries out requests within limited area of responsibility or refers to other appropriate personnel.	Not applicable.
II	18 - 39	Provides work product which is a complete project of relatively conventional and limited scope or a portion of a larger project. Work requires a limited degree of coordination and integration of diverse phases carried out by others. Refers to others the more complex and critical aspects of problem exploration, evaluation of approaches, and development or new solutions.	Carries out full range of supervisory duties with respect to Level I or lower Level II employees. Identifies and resolves developmental needs and problems, completes necessary administrative actions, complies with EEO/Safety and other regulations/policies. Develops/maintains resources and processes which enhance ability of subordinates to effectively carry out their duties.
III	36 - 47	Provides work product which is a complete conventional project of relatively limited scope, or a portion of a larger and more diverse project. Project requires coordination of several parts, each requiring independent analysis and solution. Technician reviews, analyzes and integrates work performed by other groups or individuals outside the organization.	Carries out full range of supervisory duties with respect to lower level staff including one or more who is a senior Level II. Identifies and resolves developmental needs and problems, completes necessary administrative actions, complies with EEO/Safety and other regulations/policies. Develops/maintains resources and processes which enhance ability of subordinates to effectively carry out their duties.
IV	44 - 59	Applies deep and diversified knowledge to atypical or highly difficult assignments in a subject matter or functional area. Acts as spokesperson for their activities; authorize important modifications which conform to broad policy. Coordinate assignments with those of engineers in other disciplines or subject matter areas; represent their offices in the exchange of data and discussion of technical problems at meetings.	Carries out full range of supervisory duties with respect to lower level staff, including one or more who is a senior Level III. Identifies and resolves developmental needs and problems, completes necessary administrative actions, complies with EEO/Safety and other regulations/policies. Develops/maintains resources and processes which enhance ability of subordinates to effectively carry out their duties.
V	59 - 66	Recognized as a significant contributor to a scientific or engineering field as a leader of a productive research/development team or a leader in the conception and formulation of productive research/development ideas. Recognized as an expert in own field and is regularly sought out for consultation and/or takes leadership on important committees dealing with technical matters.	Oversees the overall planning, direction, and timely execution of a technical support program, including development, assignment, and higher level clearance of goals and objectives for subordinates. Carries out full range of supervisory duties with respect to subordinates: identifies and resolves developmental needs and problems; completes appropriate administrative actions, complies with EEO/Safety and other regulations/ policies; develops/maintains resources and processes which enhance ability of subordinates to effectively carry out their duties. Manages policy & organizational changes, and changes to the structure/content of the program directed. Provides leadership in developing, implementing, evaluating, and improving processes and procedures for enhancing performance of subordinates.

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ACCEPTABLE PERFORMANCE STANDARDS: With minor exceptions, personal interactions foster cooperation and teamwork; timely, accurate and acceptable quality service is provided to customers; customer interactions demonstrate appropriate knowledge for level of interaction required by the position; and, **if employee is a supervisor**, treatment of subordinates is based on merit and fitness considerations, is consistent with law/rules/regulations/policies, is judged fair and equitable by superiors, and fosters commitment/cooperation/teamwork amongst subordinates.

SPECIFIC OBJECTIVES, TASKINGS, STANDARDS, AND/OR EXAMPLES MAY BE COMMUNICATED TO EMPLOYEES USING THE CCS FORM OR OTHER APPROPRIATE MEANS