U.S. Department of Energy

Pursuing Effective Talent Management:

A Competency Development Initiative

PRESENTATION TO THE
FEDERAL TECHNICAL CAPABILITIES PANEL

SEPTEMBER 13, 2011

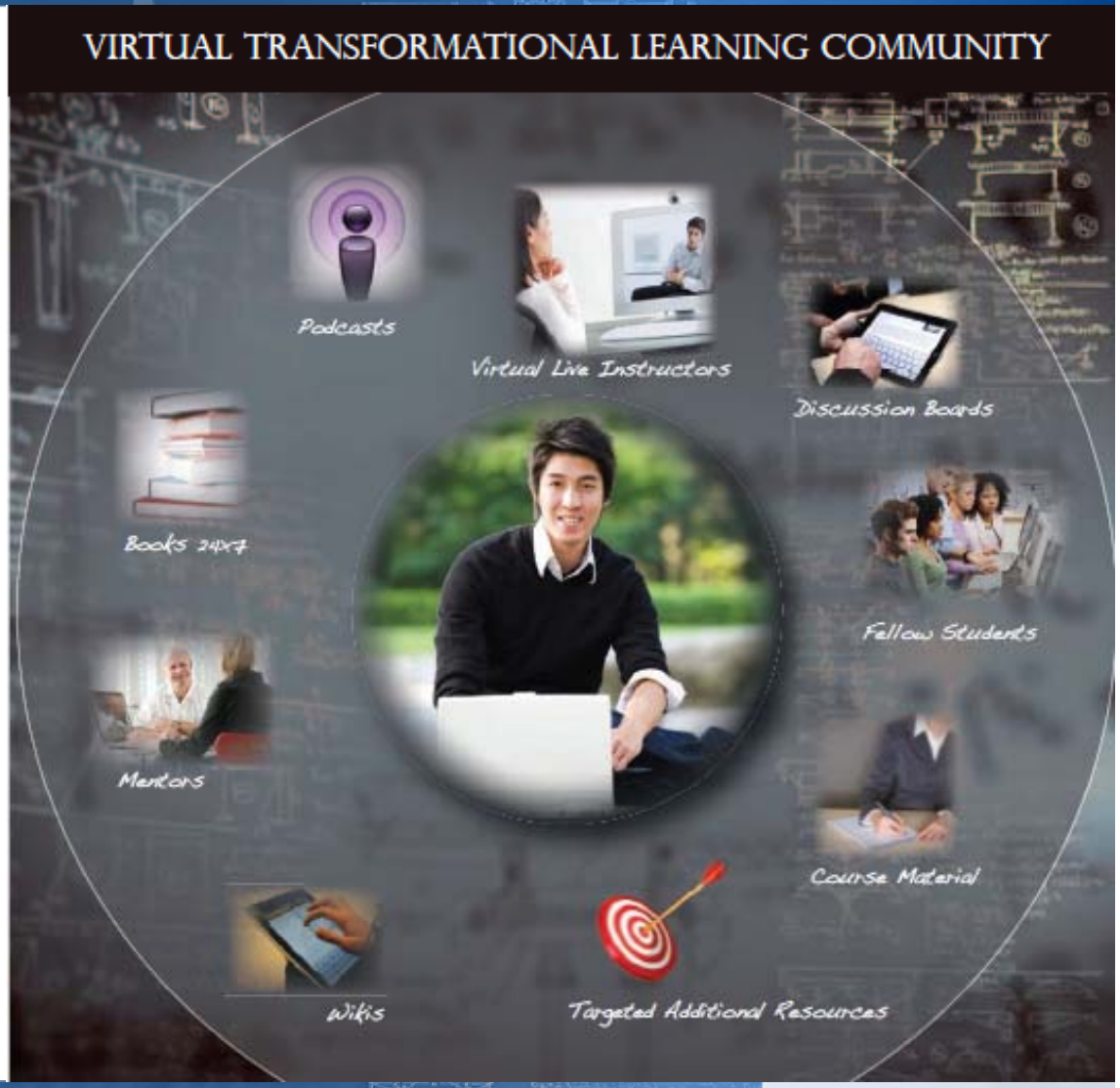
AGENDA

- Vision –
- Purpose – Why is integrated talent management important?
- Strategy
  - Competency Management Program Overview
  - Progress To-date
  - Competency Development Process
- Level of Effort
- Intended Outcomes
- Path Forward

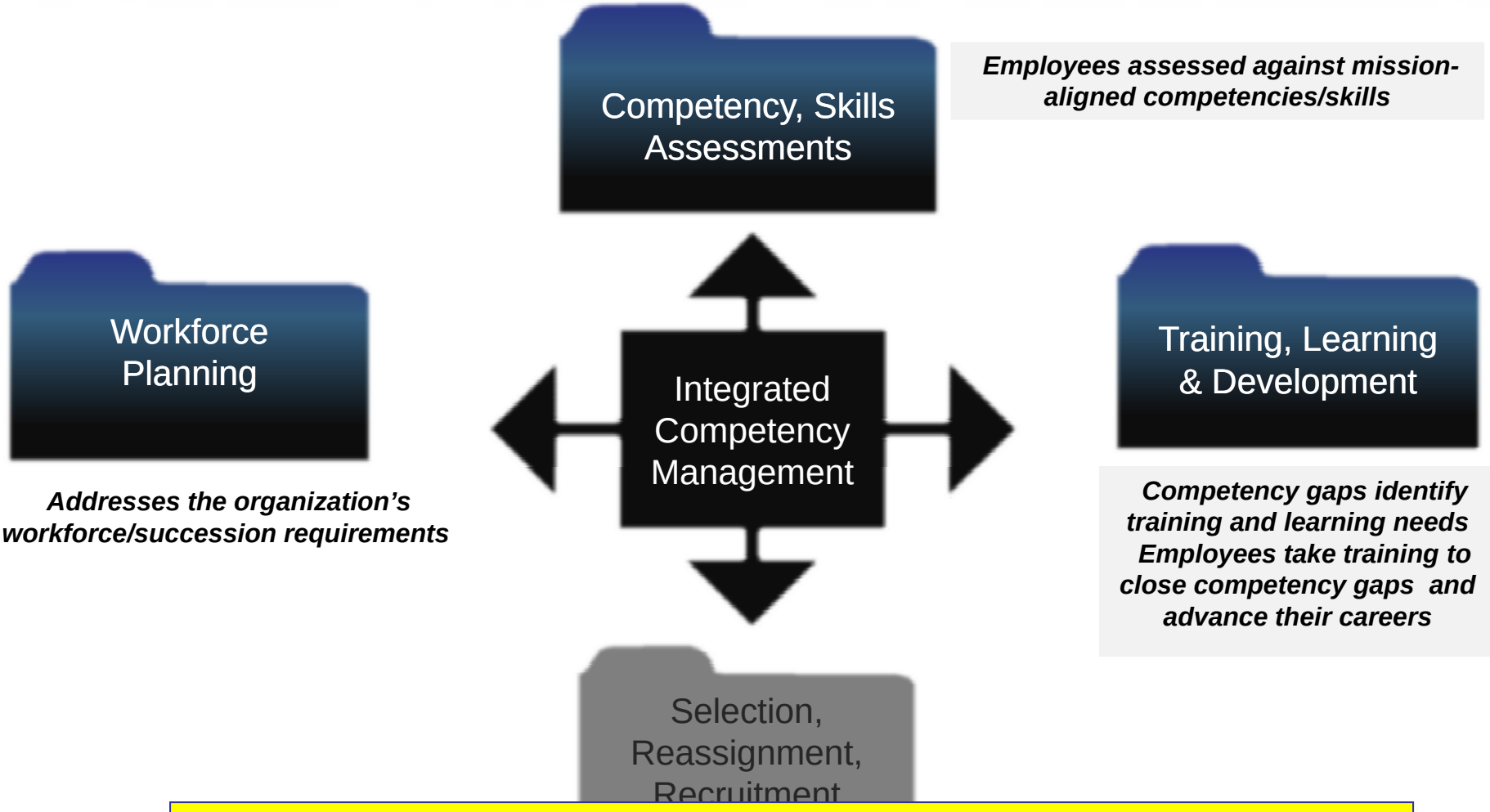
Only Here
will you define
the future of energy.

The Vision

What's the direction of workforce development at DOE?



The Strategy: Pursuing Effective Integrated Talent Management



Employees assessed against mission-aligned competencies/skills

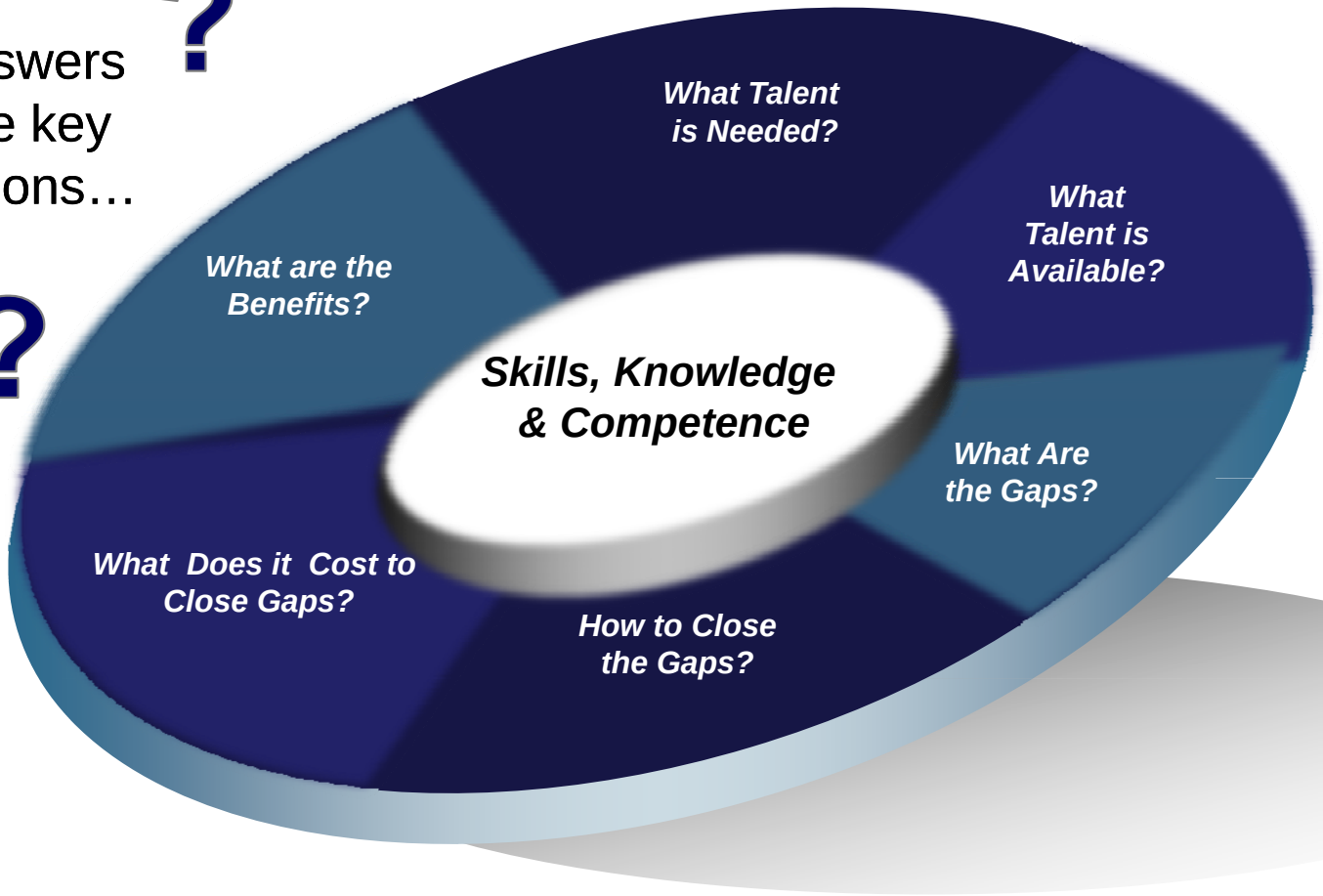
Addresses the organization's workforce/succession requirements

Competency gaps identify training and learning needs Employees take training to close competency gaps and advance their careers

NOTE: This effort will not include "Selection, Reassignment, or Recruitment." Results will NOT be used as input to performance evaluations or linked to pay.

Pursuing Effective Integrated Talent Management

…Answers these key questions…



Competency Development
Competency Model Overview

Competencies - can be characteristics that drive outstanding performance in a given job, role, or function

DOE occupational competency model - a group of competencies associated with a given occupational specialty

The number and type of competencies in a model will depend upon the nature and complexity of the work, along with culture and values of the occupational owner for a given model

Only Here will you define the future of energy.

Competency Management Program Overview & Progress To-date

Work Stream 1 – Governance and Communications

Work Stream 2 – Define & Validate Competencies

Work Stream 3 – Implement New Automated Competency Assessment Tool

Work Stream 4 – Sustainability - Operationalize Competency Management System

- **Validated DOE Dictionary for Universal, Managerial, & Leadership Competencies FY10**
- **Identified & Prioritized Occupational Specialties for Development 2QFY11**
- **Identifying Subject Matter Experts & Sponsors for Selected Occupations/Specialities 2QFY11 & Beyond**
- **Developing Occupational/ Functional Area Competency models for use in workforce development activities 3QFY11 & Beyond**

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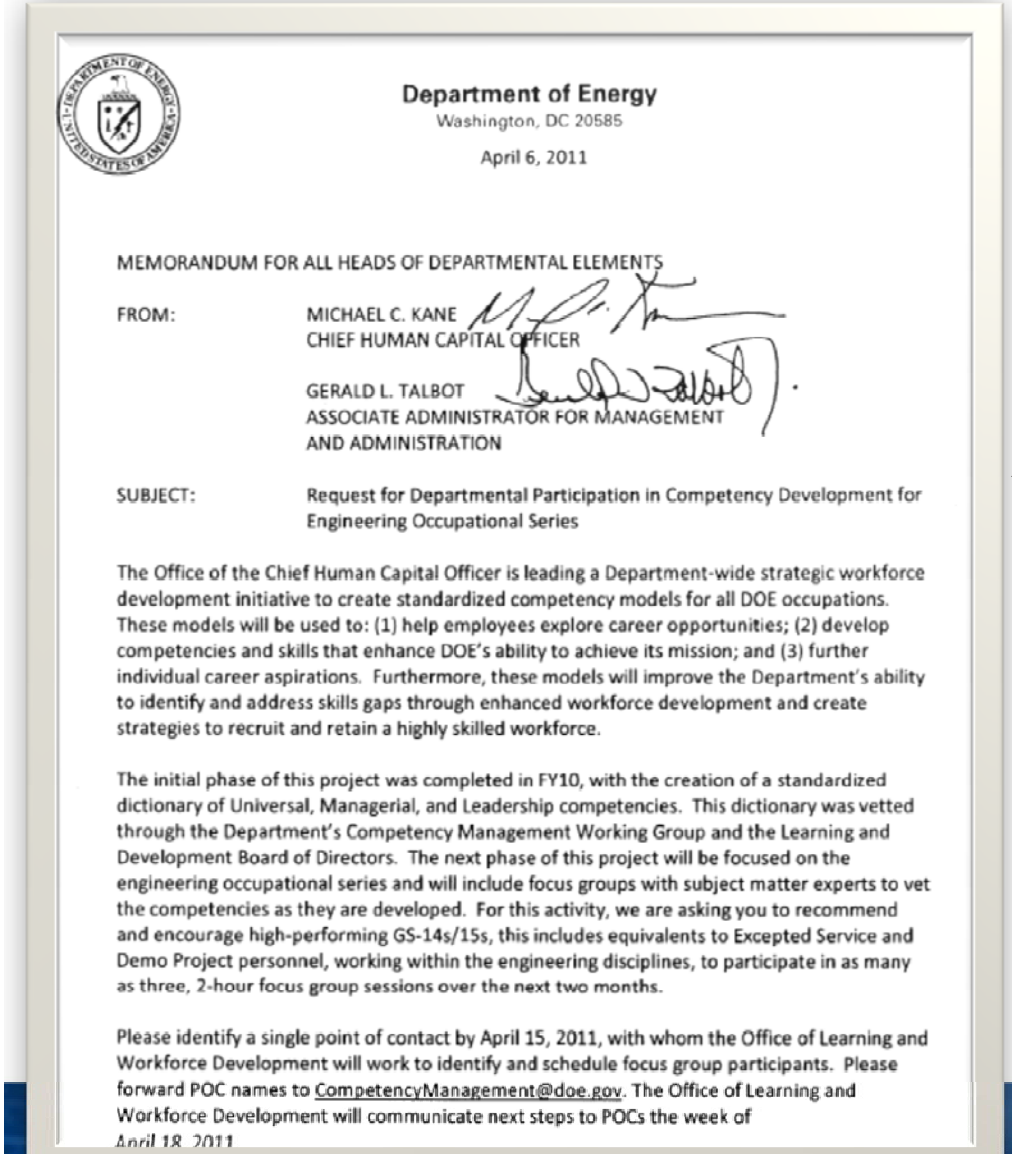
Competency Management Program Overview & Progress To-date



Department of Energy
Washington, DC 20585

April 6, 2011

MEMORANDUM FOR ALL HEADS OF DEPARTMENTAL ELEMENTS

FROM: MICHAEL C. KANE
CHIEF HUMAN CAPITAL OFFICER

GERALD L. TALBOT
ASSOCIATE ADMINISTRATOR FOR MANAGEMENT
AND ADMINISTRATION

SUBJECT: Request for Departmental Participation in Competency Development for Engineering Occupational Series

The Office of the Chief Human Capital Officer is leading a Department-wide strategic workforce development initiative to create standardized competency models for all DOE occupations. These models will be used to: (1) help employees explore career opportunities; (2) develop competencies and skills that enhance DOE's ability to achieve its mission; and (3) further individual career aspirations. Furthermore, these models will improve the Department's ability to identify and address skills gaps through enhanced workforce development and create strategies to recruit and retain a highly skilled workforce.

The initial phase of this project was completed in FY10, with the creation of a standardized dictionary of Universal, Managerial, and Leadership competencies. This dictionary was vetted through the Department's Competency Management Working Group and the Learning and Development Board of Directors. The next phase of this project will be focused on the engineering occupational series and will include focus groups with subject matter experts to vet the competencies as they are developed. For this activity, we are asking you to recommend and encourage high-performing GS-14s/15s, this includes equivalents to Excepted Service and Demo Project personnel, working within the engineering disciplines, to participate in as many as three, 2-hour focus group sessions over the next two months.

Please identify a single point of contact by April 15, 2011, with whom the Office of Learning and Workforce Development will work to identify and schedule focus group participants. Please forward POC names to CompetencyManagement@doe.gov. The Office of Learning and Workforce Development will communicate next steps to POCs the week of April 18, 2011.

Initial communication sent out April 6, 2011.

U.S. DEPARTMENT OF ENERGY

Competency Model Development & Proficiency Mapping Process

Need for competency development?	Find information that helps develop competency(s)	Develop Straw man, Refine information, and create competency model(s)	Validate linkage and statements reflect the work	Publish Competency Models
Drivers: • OPM HCAAF, GAO • Federal Hiring Reform	Responsible: HC Involves: SMEs, supervisors	Responsible: HC Involves: SMEs, supervisors	Responsible: HC Involves: SMEs	Responsible: HC

Intended Outcomes (A Case Study)

- In a plant operating environment with an aging workforce (need to hire replacement for retirees) over a four year period operating efficiency went from 62% to 82%
- During the same period training time to competence across all positions was reduced by 50%
- Huge cost-savings/cost-avoidance through improved ability to identify and address workforce development skills gaps and developmental needs.

Intended Outcomes (for DOE)

- Employees will have better tools for professional and career development.
  - A set of standardized competencies and behaviors aligned by grade and proficiency level
  - Workforce development activities aligned to validated competencies
  - Career Development Roadmaps aligned to their specific occupational competencies
  - An automated assessment tool and improved process for identifying and addressing skills gaps and developmental opportunities
- DOE organizations and decision-makers will be able to better gather strategic data on corporate competency strengths and gaps

Level of Effort

Estimated time investment of 1-6 hours - includes:

- Initial data gathering
  - Review position descriptions and sanitized performance plans
  - Identify Subject-matter-experts (SMEs) to assist with the development
  - Participants complete a voluntary, occupational, questionnaire

- Follow-on focus group work by a subset of survey population to vet draft models and help develop proficiency statements

Path Forward

How can the FTCP contribute to the success of this effort?

- Championship
- Collaboration
- Active Participation

Next Steps

- Competency Dictionary
  - Http://humancapital.doe.gov/resources_hc23.htm
- Communications to date
  - Ongoing communications tool CompetencyManagement@doe.gov
- Questions?
  - Joellen.jarrett@hq.doe.gov or Eric.coleman@hq.doe.gov

SAMPLE SURVEY

DOE Competency Assessment - Demo

As part of our commitment to effectively meet the education and training needs of employees, DOE is taking important steps to ensure employees have the knowledge, tools, and resources to achieve optimum performance on the job. One such step includes identification of the critical competencies required for successful performance on the job. Once identified, competencies will form the basis of professional development planning.

As part of the on-going competency initiative within DOE, the Office of Learning & Workforce Development is interested in identifying the most relevant and important competencies that apply to the work performed in the following job series:

- Safety Engineering (803)
- Fire Protection Engineering (804)
- Environmental Engineering (819)
- Mechanical Engineering (830)
- Nuclear Engineering (840)

SAMPLE SURVEY

We are asking employees designated to one of the above series, as well as employees designated to the 801 series, to identify the competencies that are the most critical to the work they perform and rank order the competencies from most to least important. When ranking competencies, please consider how important you think the competency is to the work you currently perform. If you perform work in more than one of the above disciplines, you will have an opportunity to identify critical competencies for each of the engineering disciplines you work in.

Confidentiality

The responses you provide will remain anonymous and will not impact your individual performance in any way.

Who is conducting the survey?

DOE Office of Learning & Workforce Development has contracted with ICF International (ICF), an external independent consultant, to conduct this online survey.

How long will the survey take?

The survey should take you approximately 30-45 minutes to complete. We strongly recommend that you complete the survey from start to finish without stopping. However, if this is not possible, you can save your answers at any point by clicking the "Save" button in the bottom right of the screen. If you save your responses, you will be given a link to use to return to your partially completed survey.

Who do I contact if I have technical problems?

If you experience technical difficulties during the completion of this survey, please contact Elizabeth Kimball at ekimball@icfi.com or 703-934-3009 between the hours of 9 a.m. to 5 p.m. EST, Monday - Friday.

Thank you in advance for your valuable feedback! Your input into this process is critical to the success of DOE's efforts.

SAMPLE SURVEY

DOE Competency Assessment - Demo

In the following questions, you will be asked to indicate the engineering discipline(s) that constitute(s) at least 30% of your work. For the applicable disciplines, you will be asked to review a list of competencies in order to select and rank the most critical (up to 15) competencies for the work in that discipline.

On average, over a year, what percentage of your time do you spend performing Safety Engineering duties?

- ○ Less than 30%
- ○ Greater than or equal to 30%

SAMPLE SURVEY

DOE Competency Assessment - Demo

Safety Engineering Part A: Critical Competencies Selection

As you mark your responses, please consider the Safety Engineering job series. You will first be asked to identify the technical competencies that are most critical to the Safety Engineering job series. Next, you will be asked to rank order the critical competencies in order of importance to the work you currently perform in this series. Technical competencies apply to technical, series-specific occupational functions.

Please read the full list of competencies. Select the 15 most critical competencies to your position from the list below (you may select less than 15 competencies, but no more than 15). If there are any additional technical competencies not listed below that you feel are required specific to the Safety Engineering series, you may add them in the "Other" rows below. Please also consider these competencies when indicating the top 15 competencies critical to your position.

☐ **Construction of Models:** Construct and communicate mathematical, conceptual, and physical models of situations, systems and devices to assist in project analysis or design, to consider applicability or problems with designs or models, and to inform others.

☐ **Engineering Emergency Management and Response:** Apply knowledge of and expertise to participate in DOE emergency management procedures in the following, as required: emergency management; continuity of operations; disaster recovery planning, drills and operations; Accident Response Group; Joint Technical Operations Team; Radiological Assistance Program; Nuclear Emergency Search Team; and/or other inter-agency and international programs capabilities relevant to the DOE mission --Work effectively in a multi-disciplinary or *specialized emergency response team setting.*

SAMPLE SURVEY

DOE Competency Assessment - Demo

Safety Engineering Part B: Competency Ranking

Please rank the competencies you selected in order of most to least important with 1 representing the most critical competency and 15 representing the least critical competency by typing each competency's number rank in the box next to its description below.

If you identified less than 15 competencies as critical, please consider only the number selected (i.e., if you selected only 10 competencies, rank from 1-10).

Engineering Emergency Management and Response: Apply knowledge of and expertise to participate in DOE emergency management procedures in the following, as required: emergency management; continuity of operations; disaster recovery planning, drills and operations; Accident Response Group; Joint Technical Operations Team; Radiological Assistance Program; Nuclear Emergency Search Team; and/or other inter-agency and international programs capabilities relevant to the DOE mission --Work effectively in a multi-disciplinary or specialized emergency response team setting.	1
Engineering Design: To address a problem or situation, create a design which meets current standards and codes. Design provides evidence of appropriate outcomes, acceptance criteria, practical consideration of constraints, scoping, risks and other development factors. Design includes functional specifications that meet DOE standards, regulations, and situational or user requirements, and tests that verify performance..	2
Experimental Design and Problem Solving: Design and conduct experiments or studies; assimilate, analyze, interpret and communicate technical data to engineers and non-engineers. Identify, formulate, and solve *engineering problems consistent with client need, application, and technical requirements.*	3

SAMPLE SURVEY

DOE Competency Assessment - Demo

Nuclear Engineering Part A: Critical Competencies Selection

As you mark your responses, please consider the **Nuclear Engineering** job series. You will first be asked to identify the technical competencies that are most critical to the Nuclear Engineering job series. Next, you will be asked to rank order the critical competencies in order of importance to the work you currently perform in this series. Technical competencies apply to technical, series-specific occupational functions.

Please read the full list of competencies. Select the **15** most critical competencies to your position from the list below (you may select less than 15 competencies, but no more than 15). If there are any additional **technical** competencies not listed below that you feel are required specific to the **Nuclear Engineering series**, you may add them in the "Other" rows below. Please also consider these competencies when indicating the **top 15** competencies critical to your position.

SAMPLE SURVEY

☐ **General Engineer or Physical Scientist- Program Administration:** Provide effective coordination of planning, research, and development activities by applying expert technical knowledge with expertise in standards and requirements for program activity and outcome evaluation and contract management.

☐ **Industry and Consensus Codes and Standards:** Possess knowledge of and correctly selects and applies appropriate industry and consensus codes, standards, and provisions related to the specific engineering discipline or functional area qualification related to the position, including relevant DOE directives and regulations as applicable.

☐ **Nuclear or General Engineer or Physical Scientist- Technical Review and Documentation:** Apply position specific expertise, knowledge of applicable regulations and directives, and observation/analysis of processes to conduct technical reviews and develop required documentation (e.g. technical or compliance reviews, Safety Analyses, Safety Evaluation Reports, incident investigations, exemption requests, etc) that is clear, complete, timely, and accurate.

☐ **Nuclear- Contractor Coordination and Oversight:** Ensure effective coordination with contractor personnel through frequent exchanges of technical information, providing routine feedback, preparing and sending reviews, providing performance input to contractor and DOE manager, providing technical advice, and resolution of issues.

☐ **Nuclear- Criticality Safety Application:** Provide practical application and communication of nuclear criticality safety to solve problems, resolve issues, interpret regulations, develop Safety Evaluation Reports, and apply protection program requirements to specific settings.

☐ **Nuclear Engineering Concepts:** Professional knowledge of the concepts and principles of nuclear engineering work involving processes, instruments and systems used to generate and/or control nuclear energy and radiation. Knowledge of nuclear reactors, nuclear systems, the planning and design of specialized equipment and processes for nuclear facilities. Functions as a recognized expert capable of applying experimental theories, new developments, and experienced judgment to solve difficult problems.

☐ **Nuclear Fundamentals:** Possess knowledge of and accurately utilize one or more of the following basic nuclear theories and principles to fulfill job responsibilities: basic theory and principles; basic fission process and results obtained from fission; radiological controls and theory; contamination control and theory; basic radiation detection methods and principles; and documentation of radiological control processes, procedures, and limits.

☐ **Nuclear- Incident Investigation:** Participate in or lead investigation of incidents, applying appropriate procedures and directives. Develop findings and recommendations, both practical and theoretical, for effective remediation and prevention.

☐ **Nuclear- Monitoring and Analysis:** Conduct independent Monte Carlo analysis, and monitor daily reports from contractors to provide *appropriate nuclear criticality safety oversight of contractor operations.*

SAMPLE SURVEY

technical reviews and assessments of basic safety documents, operations, alarm systems, and start-up to ensure nuclear criticality safety.	9
Nuclear- Technical Support: Provide expert technical support to engineers, program and project managers, and DOE facility representatives. Determine need for and conduct or coordinate analyses, technical reviews, or other support activities.	10
Nuclear- Qualification: Maintain TQP certification in nuclear criticality safety, and keep up-to-date with emerging knowledge and skills and regulatory developments needed to serve as a criticality subject matter expert.	7

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