U.S. Nuclear Regulatory Commission Competency Model (CM) Program - End of Year (FY24) Report

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Overview: Competency Model Program Contract Support

The NRC required a baseline Competency Model (CM) Program in keeping with Federal leading practices and oversight requirements. The program was developed to address these needs and offered a response to Government Oversight and Accountability (GAO) findings. Since its inception, workforce challenges and opportunities have evolved, as such the program requiring continued support to help meet model demands and longer term objectives.

Objectives:
- Task 1.1. Conduct a comprehensive review of the CM Program and develop program improvement recommendations including:
    - A. Overall quality of existing models
    - B. Input to the prioritization of which models need to be updated
    - C. Process to update existing models
    - D. Ideas to increase Staff and Manager participation
    - E. Process for identifying developmental opportunities
    - F. Process for creating new models
- Task 1.2. Develop project plan
- Task 2. Maintain project plan
- Task 3. Develop new competency models
- Task 4. Review and update existing models
- Task 5. Identify Developmental Opportunities for Selected Competencies that Staff might leverage to improve their job performance

Introduction to Kaptivate: Strategic communications and consulting firm based in Alexandria, Virginia focused on helping our clients navigate Human Capital and Communications challenges.

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Overview: 2024 CM Program Core Support Areas

PWS Task (Option Year 1) - PoP 5 yrs.	Related Accomplishments
Task 1.1: Review Current Competency Modeling Program and Provide Program Recommendations **Task 1.2: Develop a Project Plan**	Completed: Review of Competency Model Program and Development of Recommendations, Development of Project Plan
Task 2: Maintain Project Plan	Completed: CM Program Project Plan and Standard Operating Procedures
Task 3: Develop New Competency Models	Completed (3): Fuel Facility Inspector, Artificial Intelligence, Training and Assessment Specialist (NRR) In progress (2): HP Core (Sub-disciplines to follow), Management Analyst (OE)
Task 4: Review and Update Models	In progress (3):Civil Rights Specialist (SBCR), Small Business Program Manager (SBCR), Technical Assistant (SBCR)
Task 5: Identify Developmental Opportunities for Selected Competencies	Strategy to follow (see slide 7)

CM Program - OCHCO Potential Alignment Areas

Currently, the CM Program can be seamlessly integrated into various HR functions. NRC competency models can be used in various organizational contexts, including talent acquisition, performance management, learning and development, succession planning, and organizational strategy. Examples of outcomes:

Training & Development: Individual Development Plans (IDPs); Training Programs; Learning Pathways (formal and informal)

Performance Management: 360-Degree Feedback; Goal Setting & Competency Alignment

Competency-Based Qualifications: Integrate competency models into qualification process

Employee Retention: Competency Alignment with Culture; Retention Strategies

Recruitment & Selection: Job Descriptions: Competency-Based Interviews; Assessment Tools

Career Pathing & Succession Planning: Competency-Based Career Ladders; Succession Planning; Talent Reviews

Leadership Development: Competency-Based Leadership Programs; Executive Coaching: Tailored coaching programs that develop specific leadership competencies; Executive Leadership Toolkits (email templates, memorandums)

Task 1.1. Report Results from FY23 v. FY24 (Current State)

Task 1.1: Competency Modeling Program Review and Development of Program Recommendations	Base Period (FY23)	Option Period Year 1 (FY24)	Actions Taken to Mature the CM Program
A. **Quality of Models**	🟡	🟢	• Development and Consistent Revision of Project Plans
B. **Prioritization Criteria**	🟡	🟢	• Improved Modeling Processes (e.g., Two-Pronged Approach)
C. **Process to Update Existing Models**	🟡	🟢	• Development of SOPs (New Model Development and Model Revision)
D. **Process for identifying development opportunities**	🔴	🔴	• Revision of Outdated Models (e.g., Small Business and Civil Rights)
E. **Process for creating new models**	🟡	🟢	• Development of New Models (e.g., Artificial Intelligence)
F. **Ideas for increased participation**	🔴	🟡	

Table 2. Legend
Green = Limited to no changes required to support CM Program maturity
Yellow = Moderate changes required to support CM Program maturity
Red = Substantial changes required to support CM Program maturity

FY25 Moving to Green

SOW Task	Option Period Year 1 (2024)	Key Actions Required to Move from Red/Yellow to Green
Task 5: Identify Developmental Opportunities for Selected Competencies	🔴	• Work with HR, Learning, Innovation, and Support Branch, and OCHO Leadership • Develop Priority List of Competencies • Conduct TTC Alignment Workshop • Develop Plan for Identifying Developmental Opportunities • Identify developmental opportunities for 10 most widely used competencies across the agency
Task 1.1, F: Ideas for increased participation	🟡	• Create a Communications Campaign to draw attention and provide deadlines (e.g., Gap Assessment). • Add CM Program Overview as part of all new staff onboarding • Obtain Leadership Sponsorship and Engagement • Align with staff individual development plan (IDP)

Other Key Actions for FY25
- Continue to develop competency models using a two-prong approach (i.e., OE Management Analyst, Administrative Assistant, Engineering "Super" Model)
- Continue competency modeling revisions by office
- Revise and update Artificial Intelligence Competency Model
- Continue to work with Subject Matter Experts to support these areas

Table 3. Legend
🟢 Green = Limited to no changes required to support CM Program maturity
🟡 Yellow = Moderate changes required to support CM Program maturity
🔴 Red = Substantial changes required to support CM Program maturity

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FY25 Strategies to Get to Green

Communications Campaign

Develop a Communications Campaign to raise awareness of benefits and highlight critical deadlines, such as for the Gap Assessment. Ensure consistent messaging through various communication channels.

Leadership Engagement

Engage NRC leadership to actively sponsor and participate in the initiative, emphasizing its importance and setting a positive example for staff.
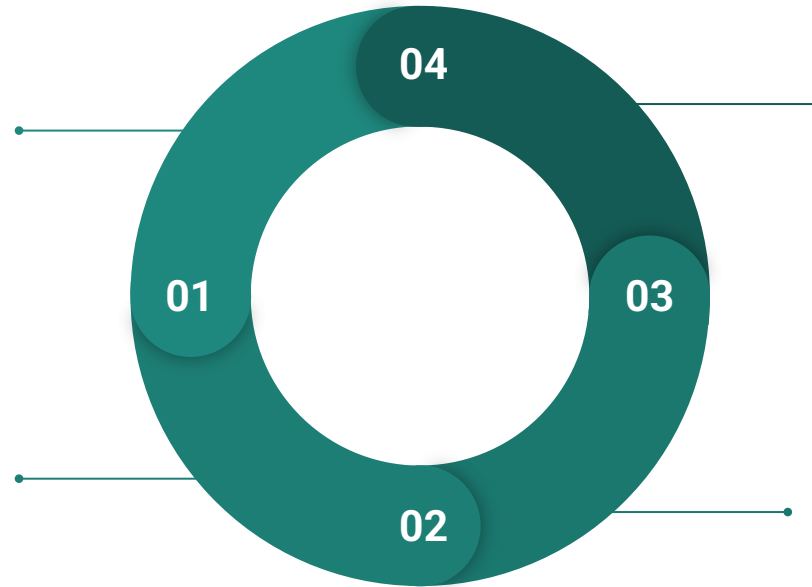
Individual Development Plan (IDP)

Align CM Program with individual development plans to increase staff engagement and staff use.

Onboarding Alignment

Incorporate CM Program Overview into new staff onboarding to build a foundational understanding from the start.

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FY25 Two Pronged Innovation Approach

1. Standardized Models per Position	2. Customized Office Engagement
Models are often repetitive and duplicative across roles within a discipline and are lacking proper alignment.	NRC Offices are missing models or have outdated models that require revisions and updates.
Solution: Develop a set of core primary tasks and competencies and build "Super" models that align across all roles within a discipline.	**Solution:** Work with NRC offices to complete, solidify, and update the office's competency modeling "portfolio".
Example: Health Physics "Super" Model (see slide 14)	**Example:** Small Business and Civil Rights Office (see slide 17)

Original CM Program

Varied Model Development and Alignment

Innovated CM Program

Standardized Models per Position and Levels

Customized Office Engagement

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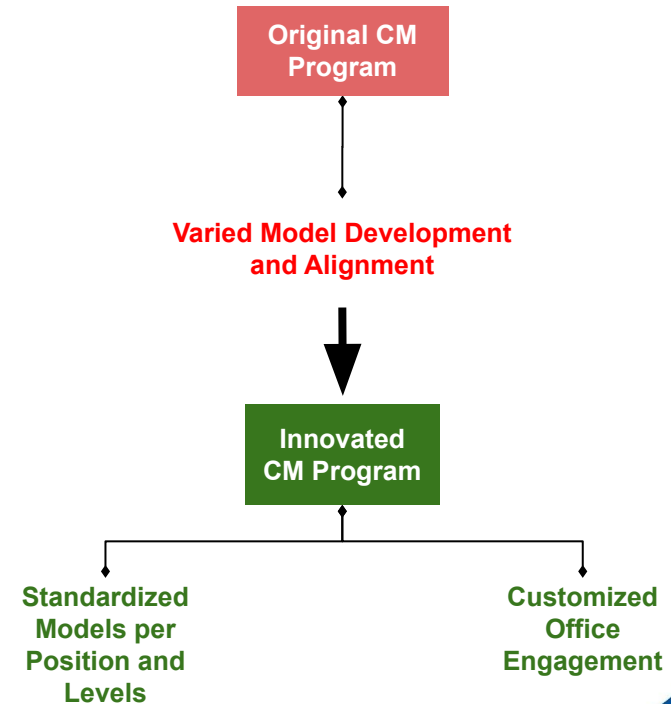
FY25 Two Pronged Approach, cont.

	Standardized Models per Position	Customized Office Engagement
Impact	➢ Provides a comprehensive view of tasks and competencies across roles ➢ Streamlines Talent Management for recruitment, succession, and promotion and ➢ Supports Strategic Workforce Planning (SWP) with a framework for identifying skill gaps and training needs ➢ Guides staff development and career growth with clear advancement criteria ➢ Promotes cross-functional collaboration and reduces organizational silos	➢ Supports NRC Workforce Needs and aligns models current strategic goals and objectives ➢ Reflects current role requirements ➢ Improves talent management processes ➢ Supports staff training and development (e.g., OCFO specific training) ➢ Facilitates career pathing and succession planning ➢ Fosters cross functional collaboration and teamwork ➢ Increases staff buy-in and engagement

FY25 Model Use in Strategic Workforce Planning

Competency models are integral to **Strategic Workforce Planning** as they provide a framework to align NRC's talent with its business goals.

- ❏ **Identifying Critical Skills for Future Needs** determines the skills, knowledge, and abilities necessary for achieving strategic objectives.
- ❏ **Workforce Gap Analysis** compares existing competencies within the workforce to the competency models, organizations can identify shortages or surpluses of specific skills.
- ❏ **Informed Recruitment Strategies** define clear criteria for roles, aiding in targeted talent acquisition.
- ❏ **Developing Training and Upskilling Programs** guides creation of training programs tailored to address skill gaps.
- ❏ **Succession Planning** identifies leadership and critical-role competencies required for long-term organizational success.
- ❏ **Enhancing Employee Engagement and Retention** understanding of the competencies needed to grow in careers, promoting professional development.
- ❏ **Scenario Planning and Risk Mitigation** assist in preparing for changes such as automation or industry disruptions by identifying competencies that will become obsolete or more critical.

Impact Example | AI Competency New Model Development

Artificial Intelligence (AI) for the Nuclear Regulatory Commission

Kaptivate developed a progressive and flexible Artificial Intelligence (AI) competency model aimed at enhancing the NRC's technological capabilities and operational efficiency. The process began with a comprehensive analysis of industry trends and NRC needs, identifying key competencies and primary tasks that would drive the future AI workforce. The NRC's AI competency model emphasizes adaptability, innovation, and scalability, allowing the agency to consistently revise, update, and adapt this model as the industry changes.

IMPACT

❑ Helps NRC meet Regulatory, Oversight, and Workforce Requirements
- ○ Complies with Federal Regulations and Mandates (e.g., Executive Order, GAO-17-233 Report, NRC AI Project Plan: Strategic Goal 4, Task 1)

❑ Defines technical skills in Artificial Intelligence
- ○ Can help the NRC attract and retain a skilled AI Workforce

❑ Sets the NRC as a leader in the Federal space and a standard for other agencies

❑ Supports NRC Workforce Strategies and Readiness to pivot as needed based on agency needs and requirements (e.g., AI Workforce Needs)
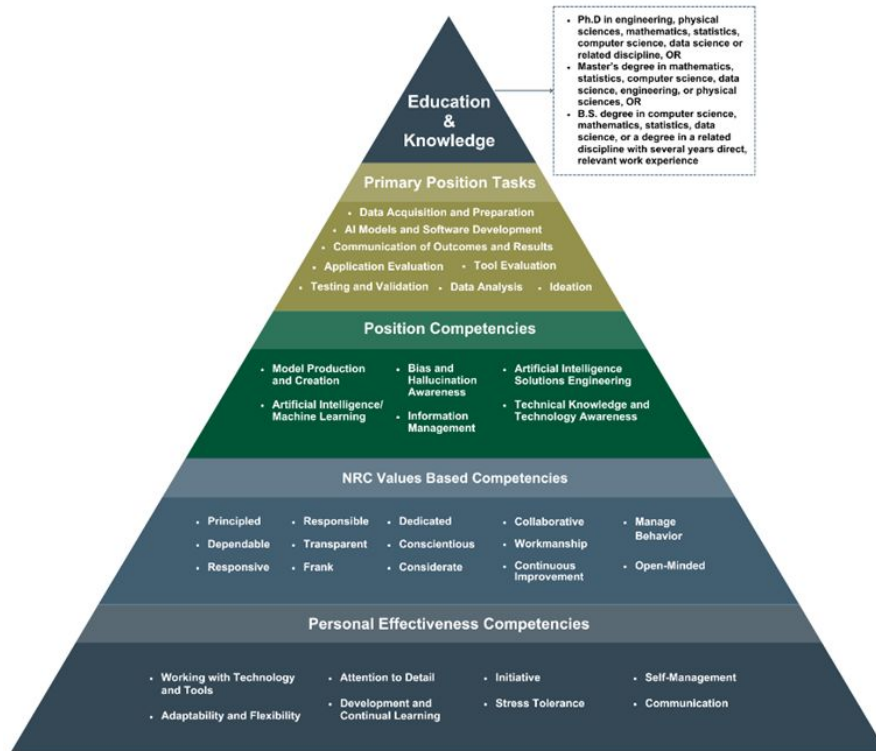
"I'm so happy about the progress made by the team. This work was 1 year ahead of schedule"
- *NRC AI Subject Matter Expert*

"You should be proud of this work"
- *NRC AI Subject Matter Expert*

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Impact Example - Artificial Intelligence (AI) Model

Pyramid diagram (bottom to top):

Personal Effectiveness Competencies
- Working with Technology and Tools
- Adaptability and Flexibility
- Attention to Detail
- Development and Continual Learning
- Initiative
- Stress Tolerance
- Self-Management
- Communication

NRC Values Based Competencies
- Principled
- Dependable
- Responsive
- Responsible
- Transparent
- Frank
- Dedicated
- Conscientious
- Considerate
- Collaborative
- Workmanship
- Continuous Improvement
- Manage Behavior
- Open-Minded

Position Competencies
- Model Production and Creation
- Artificial Intelligence/Machine Learning
- Bias and Hallucination Awareness
- Information Management
- Artificial Intelligence Solutions Engineering
- Technical Knowledge and Technology Awareness

Primary Position Tasks
- Data Acquisition and Preparation
- AI Models and Software Development
- Communication of Outcomes and Results
- Application Evaluation
- Tool Evaluation
- Testing and Validation
- Data Analysis
- Ideation

Education & Knowledge
- Ph.D in engineering, physical sciences, mathematics, statistics, computer science, data science or related discipline, OR
- Master's degree in mathematics, statistics, computer science, data science, engineering, or physical sciences, OR
- B.S. degree in computer science, mathematics, statistics, data science, or a degree in a related discipline with several years direct, relevant work experience

Development of AI Model

Problem: AI is a new emerging field and NRC is required to identity tasks, competencies, and trainings to address Strategic Workforce Planning (SWP) Needs..

Solution: Develop an Artificial Intelligence Competency Model that is flexible and allows consistent updates as the NRC AI discipline evolves.

Example: Artificial Intelligence Competency Model (see slide 12)

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Impact Examples | Health Physics "Super" Model Development

Health Physics (HP) for the Nuclear Regulatory Commission

Kaptivate is developing the NRC's first ever "Super" competency model. The process began with a comprehensive review and analysis of qualification journals for all HP roles across the NRC, followed by an in-depth interview with a Health Physics Subject Matter expert. This revolutionary approach to competency modeling expands the capabilities of the NRC and enhances multiple key areas of Workforce Planning and Development.

IMPACT

❑ Provides a holistic view of tasks and competencies across all roles within a discipline
❑ Simplifies Talent Management processes (e.g., Recruitment, Succession Planning) and provides a unified criteria to assess, develop, and promote staff across multiple roles
❑ Enhances Workforce Planning by establishing a solid framework to identify skill gaps and determine the training needed to address them
❑ Facilitates staff development, career pathing, and progression by providing clarity around the skills and competencies required for advancement; these perspectives help NRC staff identify areas for growth and define learning pathways
❑ Fosters cross functional collaboration and reduces silos

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Next Steps + Call Out Actions

➢ Discuss current onboarding process and recommend areas of alignment with CM Program (12/4/24)
➢ Present to AI Steering Committee (12/5/24)
➢ Create FY2025 Project Plan aligned to Learning, Innovation, and Support Branch priorities and Strategic Workforce Planning
➢ Ongoing model development
➢ Continue HP "Super" Model development
   ○ Gather Behavioral Rating Scale examples for HP Core Primary Tasks and Competencies
   ○ Initiate HP Sub-Model Development

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Appendix

Impact Example | CM Revision for the Office of Small Business and Civil Rights

Small Business Program Manager

Kaptivate revised the NRC's Small Business Program Manager Competency Model to align with evolving role demands and strategic goals. The revision ensured the model reflected the necessary competencies and primary tasks that would allow staff to be successful in this position. The updated model places greater emphasis on regulatory and small business support, outreach, and stakeholder engagement. As a result, small business program managers have clearer expectations and a more structured framework for professional development. In addition, small business program managers are now also better equipped to lead the NRC's small business initiatives, drive growth, and adapt to new challenges.

IMPACT

❏ Aligns with current role demands and organizational goals and objectives
❏ Places emphasis on Regulatory and Small Business support
❏ Provides staff with clearer role expectations
❏ Helps the NRC keep pace and consistently adapt to changes in a rapidly changing industry

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