SECY-99-041

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FOR: The Commissioners

FROM: William D. Travers /s/
Executive Director for Operations

SUBJECT: APPROACHES FOR ADDRESSING SKILL NEEDS IN INDIVIDUAL OFFICE OPERATING PLANS

PURPOSE:

To inform the Commission of the staff's current plans for addressing agency-wide skill requirements and the process to be used by individual offices to incorporate these requirements in their operating plans.

BACKGROUND:

As part of Phase II of the Strategic Assessment and Rebaselining Initiative, the Steering Committee forwarded a direction-setting issue paper on staffing and core capabilities (DSI-18) (see COMSECY-96-027). DSI-18 focused on the management of the agency's human resources from the perspective of five specific areas - skill requirements and availability, staffing mission and programs, training and development, attracting and retaining staff, and managing staff imbalances. The basic assumption in DSI-18, inherent from the overall logic of the Strategic Assessment and Rebaselining Initiative, was that human resources planning at the NRC would be defined by, and contained within, the NRC Strategic Plan and individual office operating plans. As a result, human resources planning, instead of a separate, stand-alone activity, would now be integrated within a broad planning structure that itself would provide the key assumptions that would drive the human resources planning effort.

To pursue this initiative, the staff has forwarded several papers for Commission consideration over the last two years. In SECY 97-112, dated May 30, 1997, the staff provided a preliminary human resources action plan that the Commission, in an SRM dated October 2, 1997, approved, but found too complex and requested consideration of a simpler approach. At the same time, the Commission requested a methodology for identifying core capabilities in coordination with related agency activities and schedules. In response, the staff provided SECY 98-037, dated March 4, 1998, which provided an alternative approach to identifying core capabilities and a preliminary schedule for implementation; SECY 98-102, dated May 6, 1998, which addressed a methodology for determining that a capability is core and for selecting a core competency source as well as providing a preliminary schedule for identifying core capability requirements and core competencies; and SECY 98-122, dated May 28, 1998, which provided a methodology for assessing the availability of technical skills at the NRC.

Two events have caused the staff to reconsider the conceptual basis of the core competency requirements model described in SECY 98-037 and the process for identifying core skills described in SECY 98-122. First, as noted in SECY 98-102, the methodology for determining that a capability is core and for selecting a core competency source drew on the experience of the Office of Research in developing and applying a methodology for determining core research capabilities (see SECY 97-075, dated April 2, 1997, and SECY 98-076, dated April 9, 1998). The significant effort expended by RES in applying its methodology and the extensive issues raised by the Advisory Committee on Reactor Safeguards and the Office of the Inspector General upon review of the final product have led the staff to concentrate on identifying technical core competencies needed to support the key technical functions of the NRC and any gaps in knowledge, skills, and abilities of the staff in meeting these competency requirements. Secondly, the HR staff, after conducting its pilot technical skills assessment proposed in SECY 98-122, concluded that a more refined approach to skills assessment was needed to ensure that skills and skill levels identified in the process are not too broadly defined or too variable in meaning to be useful as a planning tool. On September 30, 1998, the staff communicated these results to the Commission in a status report on the assessment of technical skills availability.

It should be noted that the Office of the Chief Information Officer, to meet a statutory requirement based on the Clinger-Cohen Act of 1996, has completed a skills assessment of the CIO staff with the assistance of Booz-Allen and is currently developing a remedial plan to address the identified skills gaps. The CIO initiative, however, is not addressed in this paper, which is focused on assessment of skills associated with the technical functions performed by the major program offices.

DISCUSSION:

This paper addresses the development of the process for incorporating skill needs assessments in individual office operating plans.

I. Incorporating Skills Requirements in Operating Plans

The strategies contained in the agency's strategic plan and decisions made in the annual budget process, including assumptions regarding critical agency functions and activities, provide the broad context within which the assessment of the need and the availability of skills is conducted. NRC offices are expected to identify and continually assess the knowledge, skills, and abilities required to carry out office activities described in their individual operating plans, particularly the key technical functions of the agency (defined as those needed to implement the strategies in the strategic plan and decisions made during the annual budget reviews) . The identified knowledge, skills, and abilities should serve as a benchmark for measuring the extent to which the staff possesses the requisite knowledge, skills, and abilities. Any skill needs would then be resolved through appropriate remedies such as recruitment, training, or management-directed reassignments.

The staff proposes to incorporate skill needs assessment in the Chapter B - Office Management/Organizational Activities section of office/region operating plans, beginning with the FY 1999 third quarter update. The information to be provided will be developed from currently available human resource

information, using currently available forecasting techniques and reporting categories. Although the primary focus is on technical skill needs, the operating plan assessment format is applicable to any skill need and should be used by all offices, as appropriate. The staff believes that skill needs assessment should be institutionalized in the overall planning process without delay to ensure that human resource planning becomes a regular, recurring part of the agency planning process. Offices and regions, in conjunction with HR, will thereby possess better information with which to plan and implement focused recruitment and training efforts. The format and procedures to be used are attached (Attachment 1).

II. Skill Needs Action Plan

The agency's traditional technical competency parameters, degree fields and occupational experience, effectively define target applicant pools for new hires. These parameters are less useful for identifying, developing, and maintaining up-to-date information on NRC mission specific skill sets. Information more closely related to NRC-specific skills is obtained from applicants by asking them to identify expertise in any of approximately 100 specific areas. While this information is collected on a one-time basis from applicants, it is not retained or updated on employees. The form for collecting this information is attached (Attachment 2).

As a first internal skills assessment step, therefore, the staff proposes screening current technical employees against an updated version of this set of NRC specific skills. The current level of available information technology will enable the staff to accomplish this survey through the agency intranet. The survey can be administered over the network, with responses automatically stored in a database for analysis, updating, integration with other human resource information, and retrieval for planning and decision support purposes.

The refinement of the set of NRC specific skills will take advantage of the results of job task analyses completed or underway. Job task analyses provide a valuable, function-based framework for assessing and developing mission specific tasks and related skill sets. The results provide a nucleus of information which can inform position descriptions, resource allocations, compensation determinations, performance appraisals, skills assessments, and training programs. Two recent job task analyses, one of the inspection function, the other of reactor project management, have already pointed to potential improvements in technical training. The conduct of additional job task analyses will depend on program needs and the availability of resources. To the extent that more job task analyses are undertaken, the knowledge base regarding mission specific tasks and related skill sets can be further refined and expanded.

The staff is also consulting with the Office of Personnel Management (OPM), which is interested in a collaborative effort with other Federal agencies, including the NRC, to identify and adopt public and private sector benchmarks and best practices in this area. The staff of OPM's Competency Assessment Division has reviewed some of the competency-related material the NRC has developed to date and met with members of the NRC staff on December 3, 1998, and again on December 10, 1998. OPM staff has also offered to facilitate contact with private sector organizations pursuing related initiatives with regard to competencies in the fields of science and engineering. A key objective of this collaborative effort is to define appropriate methods for developing job task analyses and translating their results into measurable sets of knowledge, skills, and abilities. Although the OPM project is a broad-based, government-wide effort to define common elements of technical competency, the staff believes that NRC's continuing participation in this effort will provide valuable input to the agency's development of methodologies to identify core competency requirements and provide the NRC a continuing window on private and public sector initiatives in this area.

CONCLUSION:

The staff is proceeding to implement the recruitment and training needs assessment format for office/region operating plans as described in Attachment 1 to this paper, beginning with the third quarter FY 1999 Operating Plan updates. The staff also intends to conduct a technical skills assessment along the lines described above by April 30, 1999 and report the results to the Commission by June 30, 1999.

COORDINATION:

This paper has been coordinated with the major program offices and the offices of the CIO, CFO, and OGC.

William D. Travers
Executive Director for Operations

Contact: James F. McDermott
415-7516

Attachments:
1. Process for Skill Needs in Office/Region Operating Plans
2. Applicant Self-Assessment Form

ATTACHMENT 1

Process for Incorporating Skill Needs in Office/Region Operating Plans

The skills assessment section of the Chapter B - Office Management/Organizational Activities section of individual office/region operating plans is

intended to focus manager and supervisor attention on the need to link planning for accomplishing critical mission-related activities to human resource utilization. To complete this section of Chapter B, office managers will need to identify the critical skills necessary to carry out functions covered by office operating plans. The office manager will need to develop an appropriate strategy and a target date for obtaining the necessary skills.

The format for reporting skill needs is shown below. In the event office managers identify no critical skill needs in a given quarterly report, the manager will enter "not applicable" in the blocks below. In the following example, an office operating plan identifies a skill need for which recruitment is the appropriate strategy. This office also recognizes the need to ensure an adequate level of skill in the use of the desktop computer tools recently provided by OCIO. Accordingly, the office operating plan would have a Chapter B entry something like the following:

FY 1999 Skill Need Category	Resolution Strategy	Resolution Target Date
Criticality Engineers	Recruitment	August 30, 1999
Desktop computer literacy	Train 200 staff on new desktop features	April 30, 1999

The primary strategies for resolving skill needs are recruitment (both internal and external) and training. Recruitment strategies generally target either individuals at the entry-level with appropriate academic training, or journeyman-level professionals with the kind of experience that typically generates some or all of the skill sets of interest to the agency. The skill requirement for entry-level hiring is basic technical competence evidenced by successful completion of a calculus-based undergraduate or graduate program in engineering or the physical sciences. For journeyman and expert level recruitment, the primary skill requirement is lengthy and rigorous academic training and/or tightly focused experience in the application of a skill set directly pertinent to an NRC function. A frequently cited example is state-of-the-art probabilistic risk analysis expertise.

Training strategies focus primarily on the technical and regulatory skills sets unique to the mission of the agency that are needed in whole or in part by both new hires and current staff. Program managers develop specific qualifications standards and concomitant training programs for specific functions, such as resident inspection, and inform the Office of Human Resources in writing of their critical skill needs on a semi-annual basis.

For the purpose of including recruitment targets and milestones in operating plans in order to address skill needs, managers will be able to use workload and attrition forecasts, supported by currently available information on employee degree fields, training, and work history.

For the purpose of including training targets and milestones, managers will identify the high priority training identified in regular bi-annual training needs assessments.