SECY-98-102

May 6, 1998

FOR: The Commissioners

FROM: L. Joseph Callan /s/
Executive Director for Operations

SUBJECT: CORE CAPABILITIES

PURPOSE:

To inform the Commission of staff actions to develop a methodology for determining that a capability is core and selecting a core competency source.

BACKGROUND:

As part of Phase II of the Strategic Assessment and Rebaselining Initiative, the Steering Committee forwarded to the Commission a direction-setting issue paper: Staffing and Core Capabilities (DSI-18). DSI-18 concentrated on five key areas which would apply to the management of human resources within the Agency. These areas are: (1) projecting skills requirements and availability; (2) staffing mission and programs; (3) training and developing staff; (4) attracting and retaining staff; and (5) managing staff imbalances. The Commission requested the staff to prepare a preliminary action plan for projecting and maintaining skills requirements, availability, and staffing, to be finalized after the strategic plan is formulated and receives Commission approval. On May 30, 1997, the staff provided a preliminary plan (SECY-97-112).

On June 6, 1997, the Commission approved a related effort, SECY-97-075, Methodology and Criteria for Evaluating Core Research Capabilities, and directed that a similar process be extended to NRR, AEOD, and NMSS. On October 2, 1997, the Commission approved the preliminary human resources action plan presented in SECY-97-112, with substantial comments. Among other things, the SRM requested the staff to provide a methodology for identifying core capabilities in coordination with related agency activities and schedules.

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The SRM also asked the EDO, CFO, and CIO to review the need for carrying out all of the tasks included in SECY-97-112 and to determine whether a simpler approach would be feasible. The response of the EDO, CFO, and CIO was provided to the Commission on March 4, 1998 (SECY-98-037).

DISCUSSION:

The staff has developed a methodology for determining that a capability is core and for selecting a core competency source (attached). The approach draws heavily on the experience of RES in developing (SECY-97-075) and applying (SECY-98-076) a methodology for determining core research capabilities. It also reflects the simpler approach suggested in SECY-98-037.

It should be noted that the special nature of the RES regulatory mission engendered significant complexity in the development and application of the methodology. Substantial staff effort was required. The main reason for this is the wide variety of functional and subject matter areas in which RES must be able to respond coupled with some uncertainty about which specific functional or subject matter expertise might be required at any particular time. The basic steps of the RES methodology and the one proposed here are essentially the same. I believe their application in the program offices can and should be simpler and less resource intensive.

The initial implementation of this methodology is one of several steps in an integrated process for identifying core capability requirements and acquiring and maintaining the core competencies to respond to them. The schedule for their development and implementation is included in the attachment.

RESOURCE CONSIDERATIONS:

Implementation of this methodology has been coordinated with the respective offices and will be will be accomplished within existing in-house staff resources.

COORDINATION:

This paper has been coordinated with Chief Information Officer. The Office of General Counsel has no legal objections. The Office of the Chief Financial Officer has reviewed this Commission paper for resource implications and has no objections.

L. Joseph Callan
Executive Director for Operations

Attachment: Methodology for Determining that a Capability Is Core and Selecting a Core Competency Source

ATTACHMENT

Methodology for Determining that a Capability Is Core
and Selecting a Core Competency Source

Introduction

The term "core" has acquired two distinct meanings in the course of activities related to determining core capability. One, developed by RES in developing a methodology and criteria for evaluating core research capabilities, defines core capability as minimum resource needed to support the regulatory mission of the agency. Core is used as a quantitative concept applied to the resource aggregate (NRC staff/contractor staff/facilities). The other meaning is qualitative. Core is defined as necessarily central to the agency's mission. Core was used in this sense by the Strategic Assessment and Rebaselining Committee to characterize those agency functions that are an essential part of the agency's mission. Core, therefore, when applied to capability, can either mean that the capability is required to carry out a core agency function, or stand for the level of resources necessary and sufficient to constitute a capability.

In this paper, a core capability is a capability required to carry out a core function, as core function has been defined in the strategic planning process. The expression "core competency" will be used to denote the resources (primarily staff or contractor skills) needed to constitute a viable capability for carrying out a core function.

The process for defining a core capability has four major steps: (1) determining that the function for which capability is needed is core; (2) determining the competencies required to constitute the capability; (3) identifying sources of required competencies; and (4) selecting source(s) of competencies required to constitute a core capability. A simplified chart depicting the process is attached (Figure 1).

Step 1: Determining that a function is core

The basis for identifying a function as core is a determination that the outcome or output of the function is required by:

- statute
- regulation
- the agency's strategic plan
- the agency's performance plan

A determination that an agency function is core does not mean that every activity associated with producing the output or outcome of the function is also core and must be performed. An activity may be necessary to producing the output or outcome, in which case it is core. Conversely, an activity may be an effective, efficient, but not necessary step in achieving a core output or outcome, in which case it may be a highly desirable option, but need not be treated as core.

Step 2: Determining required core competencies

Once core functions have been identified, the next step is to identify the competencies required to carry out the core functions. Two questions are addressed: (1) what kind of competencies are needed, and (2) how much of the competency is needed. The Commission approved, with comments, a methodology for addressing these questions presented in SECY-97-075, Methodology and Criteria for Evaluating Core Research Capabilities (SRM dated 06/07/97).

The methodology first identified the kinds of competencies needed by analyzing the universe of potential RES core functions to determine both the subject matter and the functional areas of expertise required to carry out the functions. The result was a list of 39 functional or subject matter descriptors grouped in 10 categories. In SECY-98-076 this list was reduced to 29 functional or subject matter areas.

Secondly, RES devised a process with metrics for estimating, for each of the 29 functional or subject matter areas, the likelihood that competency in the functional or subject matter area would be called upon for activity in one of 6 generic regulatory functional areas.

Finally, RES addressed the question of how much of the competency is required in two ways. The first, labeled "expertise-driven" core competency, defined a minimum nucleus or critical mass of expertise that would stay current with the state of the art and form a nucleus around which a larger capability could be built. The second, labeled "workload driven," consisted of the expertise-driven level of resources augmented to a size required to meet projected steady-state workload. In SECY-98-076 staff noted that workload-driven estimates of needed levels of competency effort are sufficiently addressed in the budget process, and recommended that "expertise-driven" level be adopted as the amount of core competency needed in determining core capability.

Although resource intensive, the RES methodology effectively addresses the challenge of spreading competency resources across a very wide variety of functional and subject matter areas in order to be able to respond to a call for specific technical activity within a core regulatory functional area. Application of this methodology in the other technical offices can be significantly less complex, inasmuch as the variety of functional and subject matter areas would be less, and the core functions, including constituent activities, outputs, and outcomes, are more easily and precisely identified than they are in RES.

Step 3: Identifying sources of required core competencies

The principal sources of required core competencies are the NRC staff and contractor staff effort funded by NRC. As noted in SECY-98-076, to a small extent some core competency may be available with requisite timeliness and independence from sources not funded by NRC (e.g., the NIST Center for Fire Research).

The identification of core competencies residing within the NRC is a function of comparing core competency requirements to current staff competencies. A methodology for skills assessment of NRC staff, and the development and implementation of automated systems to record and manage the information will be provided in a separate paper.

Ability to identify contractor or unfunded sources of core competencies is itself a core competency that should reside within the NRC staff.

Step 4: Selecting sources of required core competencies

The first step in selecting a source of required core competencies is determining whether any of the necessary constituent activities are inherently governmental functions. In this case, the activity must be performed by a government --presumably an NRC --employee with the appropriate competency. This determination should be made narrowly and at the activity level, since a core function is commonly made up of activities, some or all of which may not be inherently governmental functions.

Selection of sources of competency for functions and activities not inherently governmental should be based on effectiveness and efficiency criteria. Measures of effectiveness would include timeliness of availability, quality-level of expertise, breadth of application and fungibility of expertise, and independence. Efficiency would be measured by life-cycle costs of competing source options.

Implementation Schedule

The current schedule for integrated implementation of core capability initiatives is as follows:

Phase 1 - Skills Availability Assessment

May 1998	Develop methodology, including templates for gathering, synthesizing, storing, and retrieving skills data.
June 1998	Initial implementation of methodology in selected areas in AEOD, NMSS, NRR, and RES.
July 1998	Assess the validity and utility of collected skills data.
August, 1998	Evaluate and, as appropriate, revise methodology.
September 1998	Establish schedule for full assessment of agency technical skills.
September 1998	Incorporate skills assessment activity in FY 1999 operating plans.

Phase 2 - Core Capability Requirements Identification

May 1998	Develop and issue methodology, including criteria for determining that a capability is core, and for selecting a core competency source (e.g., DOE lab, university, other contractor, in-house staff).
September 1998	On basis of updated strategic, performance, and budget planning guidance, identify technical competency requirements over budget planning period, and longer-range horizon as feasible. • determine which competencies are core. • determine competency source (lab, contractor, in-house staff). • incorporate results in budget and operating plans.
October 1998	Advise the Commission of progress and outcomes of Phases I and II.

Phase 3 - Development and Implementation of Strategies to Remedy Competency Gaps

October 1998	Identify gaps between available in-house skills and core in-house competency requirements
December 1998	Incorporate approaches formulated for addressing competency and ongoing gaps in updates of Program and Organization Operating Plans