Nuclear Regulatory Commission Knowledge Center

Guidance for the Management of

Communities of Practice

Initial Issue

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ABSTRACT

The *NRC Knowledge Center Guide* documents the process and operating procedures for establishing, launching, and viewing Communities of Practice (CoPs) in NRC's Knowledge Center (NKC, or the Center) http://nrcknowledgecenter.nrc.gov. Specifically, the guide defines CoPs and the rules of engagement for working in the NKC, and it defines the roles, responsibilities, and expectations for people who work in the NKC. This is a living document which will be revised as more features become available and as the needs of the users change. Comments and suggestions should be sent to the NKC Chief Editor at NKC_Chief_Editor.Resource@nrc.gov.

KNOWLEDGE MANAGEMENT CHAMPION'S MESSAGE

Welcome to the NRC Knowledge Center!

What does knowledge management really mean, and why are we championing it at NRC? In 2006, NRC management realized that the agency needed to take deliberate steps to ensure that our growing staff has the best tools available to support our mission.

One concern was the accelerating loss of subject matter experts due to retirements and other career factors. The NRC Senior Leadership Team set about defining what Knowledge Management meant for NRC and in the Fall of 2006, defined knowledge management as a continuous, disciplined, and timely process of identifying, collecting, and using information to better accomplish the job.

The definition is broad by intention. Even with a definition, the term knowledge management can have a different meaning for different people.

This tool, the Knowledge Center, has been built to help all of us, however we define knowledge management, to collect, capture, and share knowledge/information relevant to our functions within the agency as we work to create an organizational memory which is readily available to all and which is designed to serve the staff. Overseen by a group of technical staff drawn from across the agency, it will change as needed to meet staff needs.

I encourage you to use the Knowledge Center to initiate and continue discussions about how and why decisions were made, share best practices, interact across organizational lines, and tell your stories.

With your help and management support we can gather our collective knowledge and leave a positive legacy to those who follow us.

Sincerely,

Martin J. Virgilio
Deputy Executive Director for Materials, Waste, Research, State, Tribal, and Compliance Programs

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CHAPTER 1
NRC KNOWLEDGE CENTER OVERVIEW

The NRC Knowledge Center (NKC, or the Center) is a virtual meeting place for staff to contribute, collaborate, capture, organize, and share information. The NKC is continually available via the Intranet and is an unclassified system facilitating knowledge-sharing among NRC organizations. The Center is available at http://nrcknowledgecenter.nrc.gov.

NRC has designated the Tomoye ECCO software as the agency's Community of Practice (CoP) tool. CoPs enable interaction and sharing of resources and experiences to support job performance, avoid duplication of effort, and connect people and ideas across organizational lines.

NKC CoP's operate on a number of principles:

- Support the mission objectives of the agency
- Maintain a voluntary membership
- Establish self-directing communities with their own agenda and focus
- Configure, review, and maintain the community content (content must be regularly reviewed for accuracy, outdated content removed or archived, etc.)
- Adhere to a consistent theme/user interface, thereby easing navigation
- Assign member roles and responsibilities within the established business rules of the NKC (see Chapter 3)
- Obey copyright rules and agency policies[1]

Communities support the objectives of the organization. As such, they set their own agenda and focus. Communities are responsible for configuring and maintaining their content, reviewing it for accuracy, removing or archiving outdated content, and adhering to the Center rules of engagement.

The Center serves a very broad user base comprised of a wide range of age groups with a variety of experience levels and backgrounds. NKC is not constrained by the conventions of traditional hierarchical structures, thereby providing broad access to peers, expert help, best practices, lessons learned, and innovative ideas, regardless of their organizational affiliation.

Specifically, Communities of Practice cross organizational boundaries and introduce users to new and diverse sets of ideas, allowing them to learn before doing, to find and to accelerate solutions, to think differently about problems, and to leverage the knowledge of a variety of experienced practitioners. The boundary-spanning aspect of communities offers fertile ground for workforce innovation and fosters the transfer of best business practices across organizations.

The goal of the Center is to maximize the effectiveness of staff resources by:

- Capturing expertise before it is lost
- Providing less expensive and more efficient training
- Facilitating and capturing the decision-making process
- Providing efficient access 24 hours a day to knowledge and experts
- Facilitating location of information, expertise, and subject matter experts
- Supporting the workforce on a real-time basis by providing access to resources and support beyond the traditional workplace

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[1] Copyrighted materials may only be posted with the documented approval of the author. Where appropriate, a copy of the authorization should be attached with the posting. If possible, a reference or a hyperlink to the information should be used rather than posting copyrighted information to the NKC.

CHAPTER 2
NRC KNOWLEDGE CENTER OPERATIONS

Membership

The majority of CoP users are primarily interested in information that allows them to support their work goals. They receive value from their interactions in the CoP through increased productivity, greater awareness, and reduction in re-work.

Membership in the NKC is open to all NRC employees and approved contractor staff having an NRC LAN ID[2]. One may request an NKC account by going to the NKC home page (http://nrcknowledgecenter.nrc.gov) and clicking on "Request an Account," in the participation box on the left hand side of the screen.

All NRC staff are able to view the basic structure of the NKC including the front pages of each CoP. They may also pose questions to Community Leaders and the Chief Editor. However, they are not able to actively participate or contribute to the NKC unless they obtain a user account. This level of access allows staff to evaluate whether membership would be beneficial prior to requesting a user account

In general, communities will be open to all portal accounts. Under rare circumstances, communities may request to be hidden from non-members if they contain sensitive information such as budget, personnel, etc. Restricted communities are only visible to their members.

Participation in the NKC falls under six primary user groups: Chief Editor, Community Administrator, Community Leader, Key Contributor, Community Member, and User Accounts. Within the NKC, these groups have graduated level of permissions which creates a hierarchy of membership responsibility. The role of these groups is expanded below.

User Groups

Chief Editor:

The NKC Chief Editor (Editor) is not responsible for managing specific communities. The Editor's main role is to serve as the administrator for the entire NKC. The Editor interacts with senior NRC management and sets the governance policies for the site. This governance includes establishing access rights for groups and users. In addition the Editor oversees the content and layout of the highest level community, the NRC's KNOWLEDGE CENTER.

Community Administrator:

The Community Administrator possesses the ability to perform all actions within any one community. As such, they oversee the technical operation of the NKC software. This includes troubleshooting, interfacing with the Chief Editor, and customizing the community's permissions and content types.

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[2] Individuals who need a LAN ID should contact the Division of Facilities and Security in the Office of Administration or the NKC Chief Editor via email at NKC_Chief_Editor.Resource@nrc.gov.

Community Leader:

Community Leaders (Leader) are responsible for managing the content and structure of the community. They also over see the level of access granted to all members. They work alongside Key Contributors and Members towards developing the general content and structure for the community. Leaders are responsible for managing and overseeing the content and conduct of members within that community. This includes ensuring that the community meets all NRC requirements regarding the use of government computer systems and handling agency information. To ensure uninterrupted and efficient community operations, Leaders are advised to designate a secondary leader so that community operations may continue in the absence of the primary Leader due to leave, illness, workload, etc.

Key Contributors:

Key Contributors are members whose rights have been slightly increased to permit them to manage content (new pages, upload documents, modify text, add pictures, etc.) without submitting requests to the Leader. They assist the Leaders by managing the knowledge content or structure of a particular subject or area.

Community Members:

Members may initiate discussions or suggest contributions (new pages, upload documents, modify text, add pictures, etc.). The discussions are posted immediately; however suggestions to add or modify content are referred to the Leader for review and disposition.

User Account:

The basic access level is the NKC User Account. These users may see all NKC unrestricted content. However, these individual are not able to post their own content or suggest contributions for the site. User Account holders may request membership in any community in order to receive expanded permissions for participation. These requests are reviewed for approval by Leaders or Administrators.

Additional expectations regarding the roles and responsibilities within the NKC are contained in Chapter 3.

Getting Help and Asking Questions

Four levels of help are available to NKC users. The first source of help is a quick reference aid which is available electronically[3] or in hard copy. A hard copy of the desk aid is available upon request from the NKC Chief Editor or from one of the designated super users listed in Appendix A.

The second level of help is to contact one of the designated super users. These super users are staff who have volunteered their help and are experienced with the NKC[4].

The third level of help is a community within the NKC entitled "Help and Resources"[5]. This community contains lessons learned and answers regarding use of the NKC which have been

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[3] Electronic copies are located on the NRC Internal Website at: http://grape.nrc.gov/NRCKC/deskguide.ppt
[4] This list of individuals is also available on the internal NRC web page at: http://papaya.nrc.gov/NRCKC/poc.cfm.
[5] This community can be accessed directly: http://nrcknowledgecenter.nrc.gov/CommunityBrowser.aspx?id=4200&lang=en-US.

gleaned through experience. Users may search the community for help and are encouraged to ask questions on any topic.

The fourth source of help is to send an e-mail to the NKC Chief Editor at NKC_Chief_Editor.Resource@nrc.gov.

Content Management

Good content management processes are necessary to prevent a community from becoming a collection of useless content. Where possible, users should use links to web sites or to documents stored in ADAMS (NRC's official document management system), to minimize NKC data storage requirements. ADAMS has the capability to house various types of files, including audio-visual files which can be accessed from the NKC[6].

NRC's content management goal is to ensure timely access to relevant and authoritative information. To accomplish this objective, community members have assigned roles (as described in Chapter 3) and the site supports a robust search capability. At this time the Center does not have a spell check feature. Thus, content should be double checked for errors before it is posted in the Center. Users may consider composing their content in a separate word processing application before posting text to the site. Also, the Center has a subscription function which when selected will e-mail the user if certain modifications are made to the community. The Community Administrator and/or Leader should subscribe to new member requests to ensure a timely response.

Persons interested in developing a new community should consider a number of issues before submitting the request:

- Does this community or one like it already exist?
- Is there management support?
- Is there an existing sense of community within the targeted staff?
- Is there a sense of energy and passion for the subject matter?
- Will the proposed community provide value to the organization?
- Are resources (i.e., funds and people) available to support the community?

Content Submission Process

The member content submission process varies according to the knowledge area type and specific community. Capturing, validating, refreshing, and archiving content require the following minimum business rules:

- Knowledge contributions must have assigned owners.
- Knowledge contributions must have a required minimum set of associated descriptive information (metadata) to facilitate the search and find process.
- Community leaders or key contributors will review proposed contributions before they are posted.

Contact a super user for additional information on establishing and managing communities.

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[6] Instructions on how to directly access a file stored in ADAMS without uploading the actual file into the NKC may be found within the NKC at: http://nrcknowledgecenter.nrc.gov/CommunityBrowser.aspx?id=4321&lang=en-US.

Content Constraints, Do's and Don'ts

The NKC is an UNCLASSIFIED system. **Do not contribute Classified, Safeguards Information (SGI), Sensitive Unclassified Non-Safeguards Information (SUNSI)**, **Not Releasable to Foreign Nationals (NOFORN), Official Use Only (OUO), or Personally Identifiable Information (PII) materials other than your own information.** General guidance on information and records management may be found on the NRC internal web site at: http://www.internal.nrc.gov/ois/divisions/irsd/index.html

If necessary, use the capability of linking to ADAMS documents to provide access SUNSI or OUO information rather than uploading the documents to the site. Contact the appropriate Office of Information Services (OIS) staff for questions or assistance regarding agency rules and requirements governing information and records management. A list of OIS staff may be found in Appendix B.

Communities that need to reference and discuss SUNSI information should contact the NKC Chief Editor about creating a closed community with restricted membership. In this case generic NKC Users Accounts are prohibited from viewing any contributions or discussions within the community. The community leader is responsible for determining need-to-know before granting access to new members.

Specifically, all users should adhere to these basic guidelines for managing content and membership:

- Report inaccurate or out-of-date content to the responsible community leader or key contributor via the "E-mail this Page" function inside of the community space.
- Keep personal profiles updated (inactive accounts without current contact information may be administratively disabled or deleted).
- Always use the NKC for its intended purpose, i.e. to facilitate access to information on specific topics and to provide for staff discussion and collaboration.
- Do not upload copyrighted materials such as industry standards into the Center without the owner's permission. Copyrighted materials may be uploaded if the owner's permission is obtained in writing and the source is properly referenced. Consider linking to the information instead.
- Do not upload unlicensed or restricted software into the Center without review and concurrence by OGC and OIS.

Members should never:

- Promote personal agendas
- Market commercial items
- Abuse e-mail privileges (Note: permission to send e-mail to a large distribution list should be used sparingly. Inappropriate use of e-mail and spamming are grounds for revoking membership.)

Members should always:

- Suggest and contribute content that is useful to other practitioners
- Engage in discussions and ask questions
- Interact with peers and subject matter experts

Leaders and Key Contributors should:

- Use the Key Contact box to identify themselves on the welcome page to their community so that interested staff may contact them if necessary.

CHAPTER 3
TYPICAL COMMUNITY ROLES AND RESPONSIBILITIES

Users may support the Community in a variety of roles, some specific to each community and some affecting the entire NKC. In some cases, an individual may fill multiple roles in a community.

Below is a list of roles which apply to NKC Communities. These roles were identified as a "best practice," by experienced CoP participants. These are not requirements for participation in the NKC, but are suggestions for maximum efficiency and utility in the operation of a CoP. Developing CoPs may choose to assign multiple roles to a single individual.

Chief Editor

- Oversees the overall operation and support of the NKC
- Provides training and support to Community Leaders/Administrators
- Manages consistent community look and feel, security, and content management processes
- Sets security permissions across NKC practice center
- Manages overall NKC membership
- Reviews, approves, or denies new member applications
- Reviews, approves, or denies requests for new communities
- Assigns new members to appropriate groups
- Notifies editors and Community Leaders of possible new community members
- Assists with changes in individual contact information
- Reviews, disables, or deletes old accounts to help manage the software license seats
- Assists users with login and/or password information
- Performs outreach, marketing, and communications support; interfaces with the Community Leaders and Facilitators to advertise and market the communities
- Publishes articles in subject-appropriate periodicals
- Recruits new members

Community Leader and Administrator

- Guides the community's purpose and strategic intent, energizes the process, and serves as a continuous resource for the community
- Acts as a sounding board for ideas
- Interfaces with the Chief Editor and reports the community's progress
- Organizes and coordinates start-up activities
- Assists community development by establishing and articulating community purpose and strategic intent
- Connects members with each other and with Subject Matter Experts (SMEs)
- Brings in new ideas when the community starts to lose energy
- Identifies community stakeholders and potential community members
- Builds and maintains participation and membership by promoting the community, monitoring membership changes, and recruiting new members
- Plans and schedules periodic face-to-face meetings
- Acts as liaison with other communities
- Acts as the community's lead editor and is responsible for the community's content
Note: Administrator has all the rights of the Leader with the following addition:
- Manages user permissions and contribution types within a community.

Key Contributor

- Qualifications should include familiarity with the content area being managed
- Committed to acting on behalf of the community and supporting the expression of differing or opposing viewpoints
- An individual responsible for or knowledgeable in a key area of information. (possibly an SME)
- Willing to volunteer time to review and validate content for publishing
- Periodically reviews accuracy of community content
- Maintains content within his or her respective area(s)
- Coordinates with SMEs
- Manages the process for review and approval of member contributions and, as appropriate, works with leaders and other key contributors
- Reviews and approves or disapproves member contributions
- Communicates guidelines to members for contributing knowledge objects and initiating discussion threads
- Works with SMEs to identify and map critical knowledge objects and to develop logical organization of content, making it readily available and easily accessible to members
- Cross-references and submits information from outside the community, making it available to members
- Seeks out potential content contributions and understands what is of particular value to the members
- Participates in community meetings
- Contributes knowledge, shares experiences

Member

- Alerts Content Editor or Community Leader of inaccurate or out-of-date information
- Informs Community Leaders if they no longer need or want to be a member of a community
- Keeps personal profile and business card up to date
- Shares knowledge experiences
- Suggests contributions

The next three roles are not established positions within the NKC, but are informal roles that may be filled by staff interested in supporting the community. Filling these roles becomes more important for large, mature communities.

Community Sponsor

- Provides high-level sponsorship and support for the community at-large
- Bolsters community membership by spreading the word
- Promotes the value of membership across an organization, thereby encouraging community growth and commitment of organizational resources
- Ensures that the community focuses on business-critical issues by monitoring the outcomes achieved by the community
- Acts as the community's champion, commending participation in community activities
- Provides resources for expansion and supports the Community Leader and the community

Subject Matter Experts

- Knowledgeable and experienced community member uses his or her knowledge of the discipline to judge what is important and useful
- Enriches information by summarizing, combining, contrasting, and integrating it into the existing knowledge base
- Assists in identifying and mapping critical knowledge applicable to the community
- Helps establish the community organizing structure
- Works to ensure that community knowledge objects are relevant and valid
- Works to refresh and expand the knowledge base
- Suggests potential topics for face-to-face community meetings and participates in meetings
- Reviews community member contributions to ensure quality and relevancy of material
- Provides process analysis expertise
- Participates in the community as a member

Facilitator

- Fosters and facilitates member interaction
- Ensures community forums are productive for all members by acting as an independent community process expert
- Monitors community activity to ensure community responsiveness to members
- Serves as an expertise locator
- Provides collaborative encouragement and expertise
- Provides expertise about group dynamics and techniques to help the community solve problems and evolve over time
- Assists in building and maintaining participation and membership
- Stimulates knowledge sharing across the community by coordinating collaboration within the community
- Initiates personal contact with community members to generate interest in the community site
- Seeks out potential content contributions
- Seeks to understand what is of particular value to the members
- Coordinates and facilitates face-to-face community meetings
- Interfaces with the NKC Support Team on outreach and marketing efforts for the community

APPENDIX A:
List of Community of Practice Points of Contact

(as of July 1, 2008)

First Name	Last Name	ORG	Phone
Kenneth	Armstrong	RES	301-415-5958
Jonathan	Barr	RES	301-415-5330
Matthew	Bartlett	NMSS	301-492-3119
Eugene	Burdine	OIS	301-415-5665
Antony	Calvo	RES	301-415-5207
Donald	Cool	FSME	301-415-6347
Jin-Ping (Jack)	Gwo	NMSS	301-415-3178
Evan	Davidson	NRR	301-415-1342
Patricia	Eng	FSME	301-415-7254
Elena	Greynolds	NRO	301-415-8315
Niav	Hughes	RES	301-415-6302
Ilyne	Miller	NRR	301-415-7184
Sophonia	Simms	NRR	301-415-0601
Shamica	Walker	FSME	301-415-5142

A list of Office Knowledge Management Champions and Office Staff Leads may be found on the NRC Knowledge Management Home page located at http://papaya.nrc.gov/KM/home/index.cfm.

APPENDIX B:
Pertinent NRC Rules and Regulations

(as of May 1, 2008)

Issue Regulation	Contact	Phone/E-mail	URL
FOIA	Russell Nichols	301-415-7169 / ran2@nrc.gov	http://www.internal.nrc.gov/ois/divisions/irsd/foia/
Records Management	OIS staff	301-415-7230 301-415-7228	http://www.internal.nrc.gov/ois/help/faq-rec-mgt.html http://www.internal.nrc.gov/ois/divisions/irsd/records-mgt/index.html#how
SUNSI	Donna Sealing	SUNSI.Resource@nrc.gov	http://www.internal.nrc.gov/sunsi/faq.html
Privacy Act and PII	Sandra Northern	301-415-6879 / ssn@nrc.gov	http://www.internal.nrc.gov/ois/divisions/irsd/privacy/index.html#pii