



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

EMAB Knowledge Management for EM

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- The mission of the Department of Energy (DOE) Office of Environmental Management (EM) is to complete the safe cleanup of the environmental legacy by utilizing the most effective resources and skills by attracting and retaining the best possible workforce.
- With almost 50% of the EM workforce eligible to retire in the next five years, EM may lose critical positions and agency knowledge.



Background

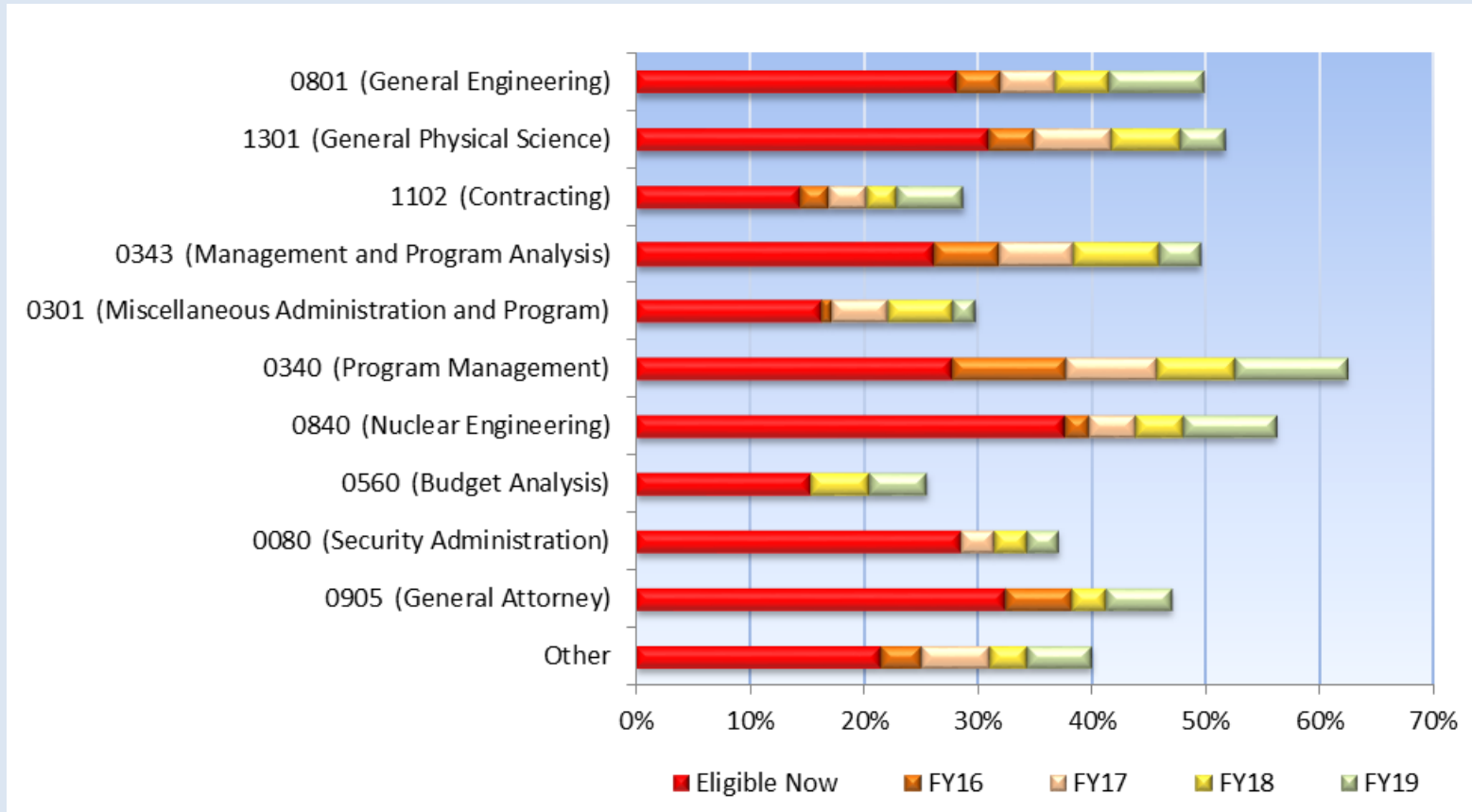
- EM continues an enduring mission with increasing technical challenges.
- A qualified and motivated professional workforce is needed to ensure continuity of mission planning and execution.
- How to address this issue in an environment of limited resources is a multi-faceted challenge.
- With the current hiring freeze and potential limitations on Program Direction funding, the EMAB Knowledge Management focus group is concentrating its efforts on knowledge management and succession planning for the EM workforce.
- Strategies to address knowledge management, succession planning, and retention are more important now than ever.
- This period of transition and turnover enhances the need.

Workforce Findings

- EM has a significantly decreasing number of employees below age 30 due to a severe reduction in budget for intern pipeline programs.
- 31% of EM's workforce is currently eligible to retire.
- An additional 23 % is eligible to retire by FY 2020.
- Average age of the EM workforce is 52 years.
- EM's average number of years of service is 19.9.
- Over 73 percent of EM is greater than 45 years of age.

EM Employee Retirement Eligibility by Occupational Series

- For three of the ten largest EM occupational series (0340 Program Management, 0840 Nuclear Engineering, and 1301 General Physical Science), more than 50 percent are eligible to retire by FY 2019.



Types of Knowledge

- **Tacit Knowledge** in the “Brains of Employees.” It has not been captured, so it has not been formalized or documented. The knowledge cannot be easily accessed by other employees.
- **Explicit Knowledge.** written knowledge, captured, documented, or codified.
- **Implicit Knowledge.** knowledge a team may need looking forward.

Why Knowledge Management is Required

Knowledge Management is required to ensure the following;

1. Full back up capabilities exist for each member of your staff.
2. Current plans are in place to promote the career advancement of each member of your team, and training of your staff is available to prepare them to possibly replace potential retirees.
3. Proper documentation is in place to provide incoming personnel complete knowledge of each positions responsibilities.

Three Focus Areas

- **Knowledge Management** strategies to capture and share mission-critical knowledge and experience.
- **Succession Planning** to define EM's human capital workforce predicted turnover and priorities for the coming five years and options to address.
- **Retention** as a priority especially when hiring opportunities are limited. Identification of **hiring priorities** in order to be prepared when opportunities are presented.

Knowledge Management Plan Implementation

An EM Headquarters **Knowledge Management** strategy can provide the basis for capturing and transferring knowledge as employees move on or retire.

- Leadership at all levels in the organization must embrace this as a priority
- Needs to become part of the organizational culture
- Consider the principle of “**the thirds**” in career development: Employees should be spending one third of their time with their peers, one third of their time with those less experienced, and one third of their time with those more experienced. Balance sharing knowledge and obtaining knowledge.

Knowledge Management Ideas

- Utilize an informal **job journal** to denote various deliverables and requirements for your job.
- Implement **Knowledge Kafés**, where employees can learn about different job requirements and procedures in an informal meeting.
- Utilize **Flash Mentoring** which can be used to provide mentoring on a specific project or task.
- Strengthen **backup positions**. Require partial or full back-ups for critical positions.
- Explore ways to better utilize **Job sharing** to support knowledge management and succession planning.

Knowledge Management Ideas

- Consider the effectiveness of **Lessons Learned** programs to ensure that both the successes and failures are being documented and shared and that the teaching/training benefits are being realized.
- Ensure that **Mentoring Programs** (whether EM specific or agency-wide) are robust and are developed considering future critical shortfalls in key technical areas.
- Introduce **Job Shadowing** especially for more junior staff to provide opportunities for employees to gain knowledge and experience from a manager or senior leader
- Revisit utilization of **EMERS** to increase documented communication knowledge sharing.

Succession Planning Ideas

- Ensure the **EM Succession Plan**, which defines EM's human capital priorities for the coming five years, key positions, and potential recommendations, is utilized.
- Utilize plan to incorporate knowledge management ideas which also support succession planning (e.g., back-up requirements, rotational assignments, job shadowing).
- Enhance employee career training and development plans with emphasis on virtual training opportunities, especially in leadership development and employee engagement.
- Explore the possibility of developing a strategy for **increasing rotational and detail assignments** in mission critical areas with emphasis on developing leadership and management skills.

Retention and Hiring Ideas

- Employee morale is even more important in times of transition and turnover. Simple actions make a difference.
 - Leadership “walk-arounds”
 - Personal notes of thank you/congratulations/acknowledgment
- Re-look at employee recognition programs. While opportunities for salary bonuses are limited, EM-wide public recognition and other non-monetary awards are meaningful.
- Use shadowing and rotational assignments as mechanisms to motivate employees.
- Identify positions/skills most critical to continued mission accomplishment.
- Focus on hiring and backfilling where possible use entry grade levels (or lowering grade structure) for backfills where possible.
- Utilize internship programs as funding allows.

Additional Considerations

- Consider adding key elements into manager performance plans.
 - Knowledge management
 - DAS-level succession planning
 - Mentoring
- Human Resources and/or union approval/endorsement may be required or beneficial for some initiatives.
 - Participation in mentoring programs
 - Shadowing and rotational assignments
 - Succession planning and IDPs
- Consider how EM can incentivize knowledge management, transfer and sharing.
 - Is part-time employment with a focus on knowledge management possible for experts who are planning retirement in the near-term?
 - Are there ways to incentivize both sides of a mentoring relationship or rotational assignments?
 - Spotlight examples where knowledge management is being successfully implemented

General EMAB Recommendations

- Make **Knowledge Management** a program priority. Develop a strategy and implementation plan.
 - Focus initial knowledge management efforts on positions and technical/programmatic areas that are the most critical to mission success, these can be found in EM's Workforce Plan.
- Utilize the **EM Succession Plan** to not only define human capital priorities but to also incorporate strategies supporting knowledge management.
- **Retention** is key when hiring opportunities are limited.
 - Encourage managers to “take the pulse” of their groups and to take simple steps to recognize employees and foster strong morale.

Specific Recommendations – Short Term

Potential short term strategies and actions to address gaps

- Pilot ideas that can be easily implemented to begin to build momentum. (e.g., Kafés, Job Journals)
- Explore the possibility of developing a **Flash Mentoring Program** consisting of a one-time meeting or project related mentoring enabling an individual to learn and seek guidance from an experienced individual on a specific topic or relevant issue. This can be used as a tool for transferring institutional knowledge. This requires a shorter investment of time yet relates to a specific task or project.
- Ensure EM continues to **update and maintain** the most current job descriptions, required deliverables, and job competency models.
- Ensure EM continues to update and maintain employees' **Individual Development Plans (IDP)**. Individuals are encouraged to identify, and plan for resources to develop and enhance their current competencies. Require competency assessments be completed by each employee.

Specific Recommendations – Long Term

Potential long term strategies and actions to address gaps

- Promote and develop an EM Headquarters **Knowledge Management** strategy for capturing and transferring knowledge from potential retirees.
- Explore the possibility of developing a strategy for **increasing rotational and detail assignments** in mission critical areas with emphasis on developing leadership and management skills.
- Explore the possibility of promoting EM's and **DOE's Mentoring Program** either in coordination with DOE or as a specific Program for EM encouraging learning opportunities for employees to gain knowledge and experience from a Manager or Senior Leader.
- **Reinstate EMERS** to increase documented communication knowledge sharing.