

# Knowledge Loss Risk Assessment (KLRA)



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## Structure of Presentation

- What is KLRA?
- Why we need to use it?
- When it can be used?
- Who suppose to do it?
- Where to start?
- How to use it?



## What is KLRA? - Purpose

- Increase awareness among senior and middle management of nuclear organization of the need to develop a strategic approach and action plans to address the potential loss of nuclear knowledge and skills;
- Provide processes and tools for senior and middle nuclear research organization to use in conducting risk assessments to determine the potential for loss of nuclear knowledge (especially undocumented knowledge) caused by the loss of experienced workers;
- Enable nuclear organization to utilize this knowledge to improve the skills and competences of new and existing workers

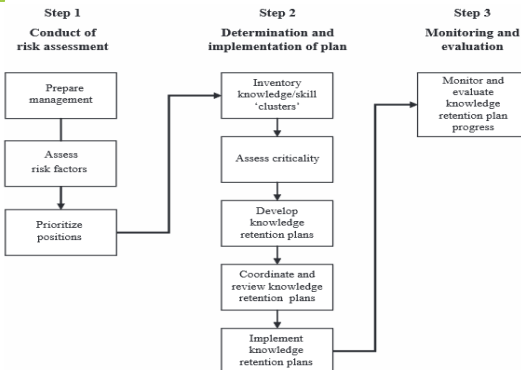


## What is KLRA?

- Attrition related knowledge loss threats can be identified, prioritized and addressed using the KLRA process to determine a total risk factor for each employee in the organization.
- This total risk factor is based on a projected attrition date, which could be retirement, transfer, or other attrition (attrition risk factor), and criticality of knowledge and skill (position risk factor).
- This three step process has been successfully implemented by the Tennessee Valley Authority (TVA) in the USA



## What is KLRA? - Action plan



## Why we need to use it?

It is important to us because:

- To identify critical knowledge
- Strategize the preservation of nuclear knowledge
- Minimize the cost and maximise the impact



## When, Who & Where to start?

- When : now...
- Who: Managers and above
- Where: each unit, group, project and division.



## How to use it?

$$\text{Attrition Factor (AF)} = \text{Position Factor (PF)} \times \text{Retirement Factor (RF)}$$

## How to use it? – Position Factor (PF)

Mark	Description
5	Critical and unique knowledge or skills. Mission-critical knowledge or skills with the potential for significant reliability or safety impacts. site-specific knowledge. Knowledge undocumented. Requires 3-5 years of training and experience. No ready replacements available
4	Critical knowledge and skills. Mission-critical knowledge/skills. Some limited duplication exists at other plants/sites and/or some documentation exists. Requires 2-4 years of focused training and experience
3	Important, systematized knowledge and skills. Documentation exists and/or other personnel onsite possess the knowledge/skills. Recruits generally available and can be trained in 1 to 2 years
2	Proceduralized or non-mission-critical knowledge and skills. Clear, up-to-date procedures exist. Training programs are current and effective and can be completed in less than one year
1	Common knowledge and skills. External hires possessing the knowledge/skills are readily available and require little additional training

## How to use it? – Retirement Factor (RF)

Mark	Description
5	Projected retirement date within 1 year
4	Projected retirement date within 1 to 2 years
3	Projected retirement date within 2 to 3 years
2	Projected retirement date within 3 to 5 years
1	Projected retirement date is less than 5 years

## Exercise..

- Fill in the given form and calculate the Attrition Factor for each individual of each group.
- Use the **Organization Structure** to identify **Position Factor**
- Use **Online tool** to recognise the **Date of Birth** to identify **Retirement Factor**  
(<http://localweb.nuclearmalaysia.gov.my/biodata/phonebook/KM/searchNamaKM.asp>)

## Exercise..

Name	PF	RF	AF	Comment
1.				
2.				
3.				
4.				
5.				
6.				
7.				

The image features abstract green geometric shapes. On the left, a solid green triangle points downwards. On the right, a complex arrangement of overlapping, semi-transparent green polygons in various shades (from light lime to dark forest green) forms a larger, irregular shape. A thin white line extends from the bottom-left corner of this complex shape towards the center of the page.

Thank you...