

Alfred Sanggau Ligam, Mohd Fairus Abdul Farid, Ahmad Nabil Abd Rahim, Nurhayati Ramli, Datin Zarina Masood, Mohammad Suhaimi Kassim, Normazlin Ibrahim  
 Nuclear Power Centre, Malaysian Nuclear Agency  
 Bangi, 43000 Kajang, Selangor  
 Email: alfred@nm.gov.my

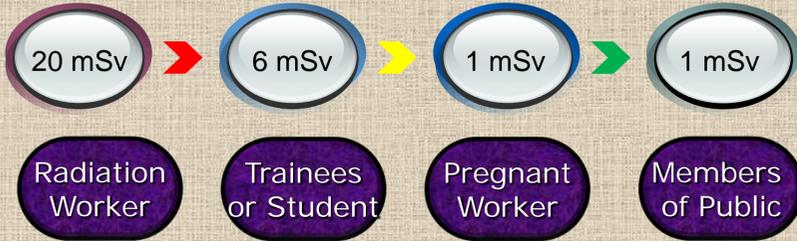
### Abstract

Radiation Monitoring System aiming to limiting dose exposed to personnel to the lowest level referring to the concept of ALARA (As Low As Reasonably Achievable). Atomic Energy Licensing (Basic Safety Radiation Protection) Regulation 2010 (Act 304) is a baseline to control employee and public radiation protection program and guideline, as well as to meet the requirement of the Occupational Safety and Health 1994 (ACT 514).

### Objective

The purpose of the monitoring is to keep a constant surveillance over the personnel safety, working environment and to detect the quantity and extent of contamination. All instruments calibrated periodically in terms of the appropriate quantities used in radiation protection. Dose absorbed by personnel or public shall not exceed the Annual Dose Limit.

#### Difference categories of Annual Dose Limit (ADL) reference;



### Introduction

The safety of the reactor can be assured through the continuous and vigilant monitoring of its operational parameters. Atomic Energy Licensing (Basic Safety Radiation Protection) Regulation 2010 (Act 304) require monitoring to be carried out on all personnel who work in controlled areas (and selectively in supervised areas) and reactor visitors. Occupational exposure can be delivered to personnel either by sources outside the body in the form of external radiation or by intake of radioactive contaminants.



#### Personnel

- to control occupational radiation exposure of working personnel and visitor.



#### Workplace

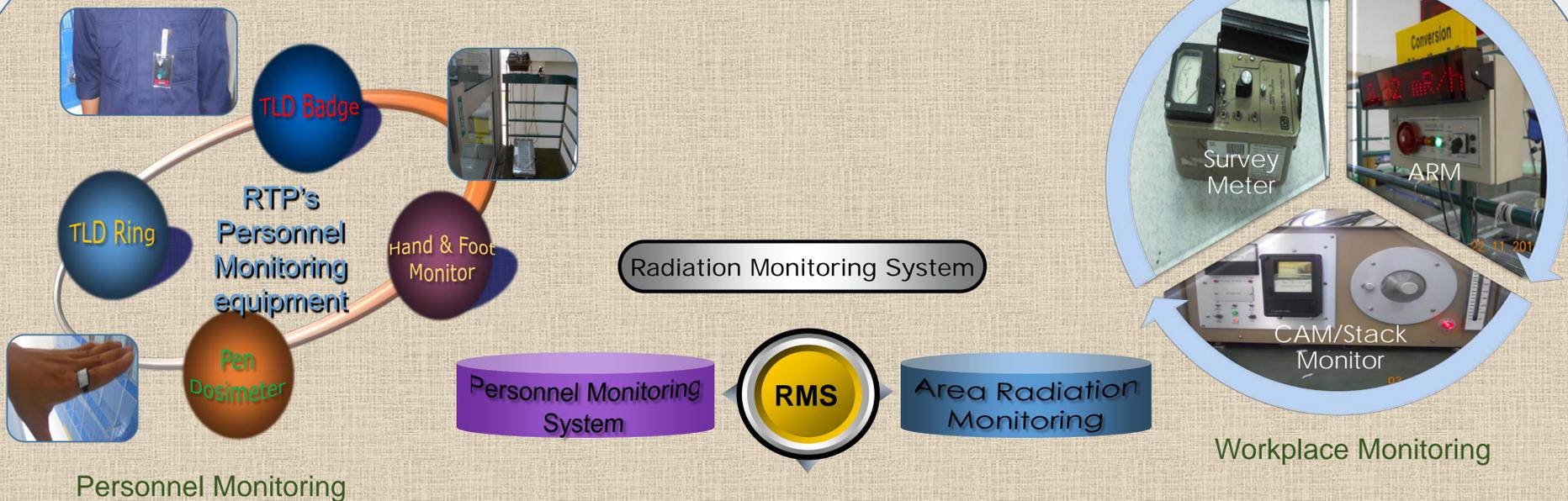
- to control reactor building and facilities from produced hazardous circumstances.



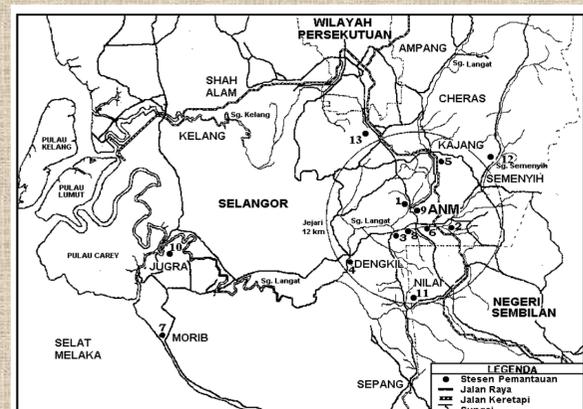
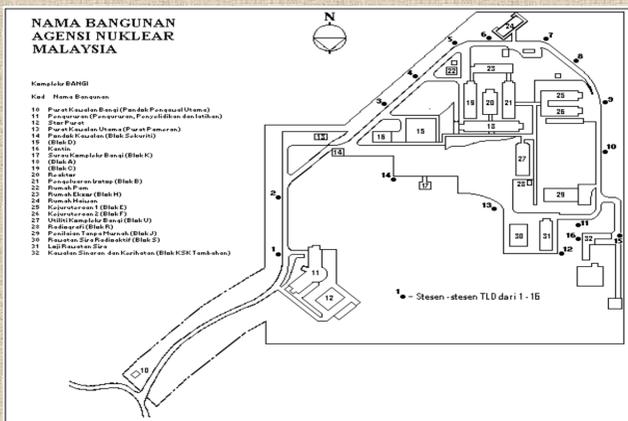
#### Environmental

- more towards controlling public exposure.

### Equipment and Monitoring Procedures



### Environmental Monitoring



TLD and Sampling monitoring and analysis stations (including reactor coolant)

### Result and Conclusion

Continuous monitoring of operational safety parameters at the PUSPATI TRIGA Reactor is essential for assuring the safety of the reactor, personnel and environment. The analysis of the data shows that the safety of personnel and environmental are not compromised due to the operation of PUSPATI TRIGA Reactor (RTP).