International Conference on

Nuclear Decommissioning

15 - 19 May 2023, Vienna, Austria

Addressing the Past and Ensuring the Future



REGULATORY INSPECTION STRATEGY DURING DECOMMISSIONING ACTION OF RESEARCH REACTORS IN INDONESIA

Helen Raflis, Rizal Palapa, and Lukman Hakim

Directorate of Inspection for Nuclear Installation and Materials, BAPETEN Jakarta, Indonesia



RRs in Indonesia







Fig. 1. Research Reactors in Indonesia

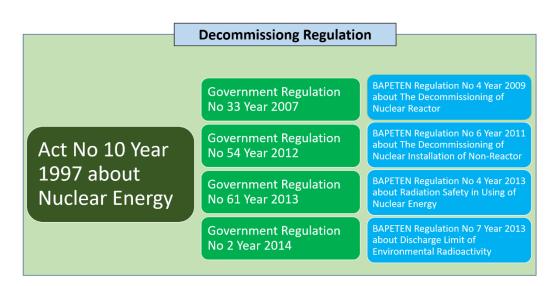
(a) TRIGA 2000 (1965)

(b) Reactor Kartini (1979)

(c) RSG GAS (1987)



REGULATORY INSPECTION STRATEGY DURING DECOMMISSIONING



COMPARISON OF OPERATION AND DECOMMISSIONING

| No | Operation | Decommissioning |
|----|----------------------|-----------------------|
| 1. | Operational Safety | Handling Nuclear Fuel |
| 2. | Maintenance and | Dismantling of SSCs |
| | Aging Management | |
| 3. | Radiation Protection | Decontamination |
| 4. | Management System | Physical Protection |
| 5. | Nuclear Emergency | |
| 6. | Environmental | |
| | Management and | |
| | Monitoring | |

| | Operation | Decommissioning |
|------------------------------|---|---|
| Hazard Profile | Stable, well characterized, focus: radiological effects | Changing, less well-characterized, changeable working environment, industrial safety issues |
| Hazard Analysis | Operation-oriented, generally stable, focus on off-site | Dynamic, mainly task-oriented, changeable, focus on-site |
| Work Control and | Routine operation and | Task-/job-oriented, new tasks, work |
| Planning | maintenance, short tasks | planning for workplace safety critical |
| Workforce | Facility familiarity operation and | New mission, limited experience, |
| Experience | work according to design | contractors with little facility experience |
| Staff | Permanent | Changeable (tasks and phases) |
| Permanent | Constant with | Interim facilities and degradation of |
| Structures | maintenance | structures |
| Publics and Involved Parties | Routine channels | Dynamic & changing (contractors) |

