



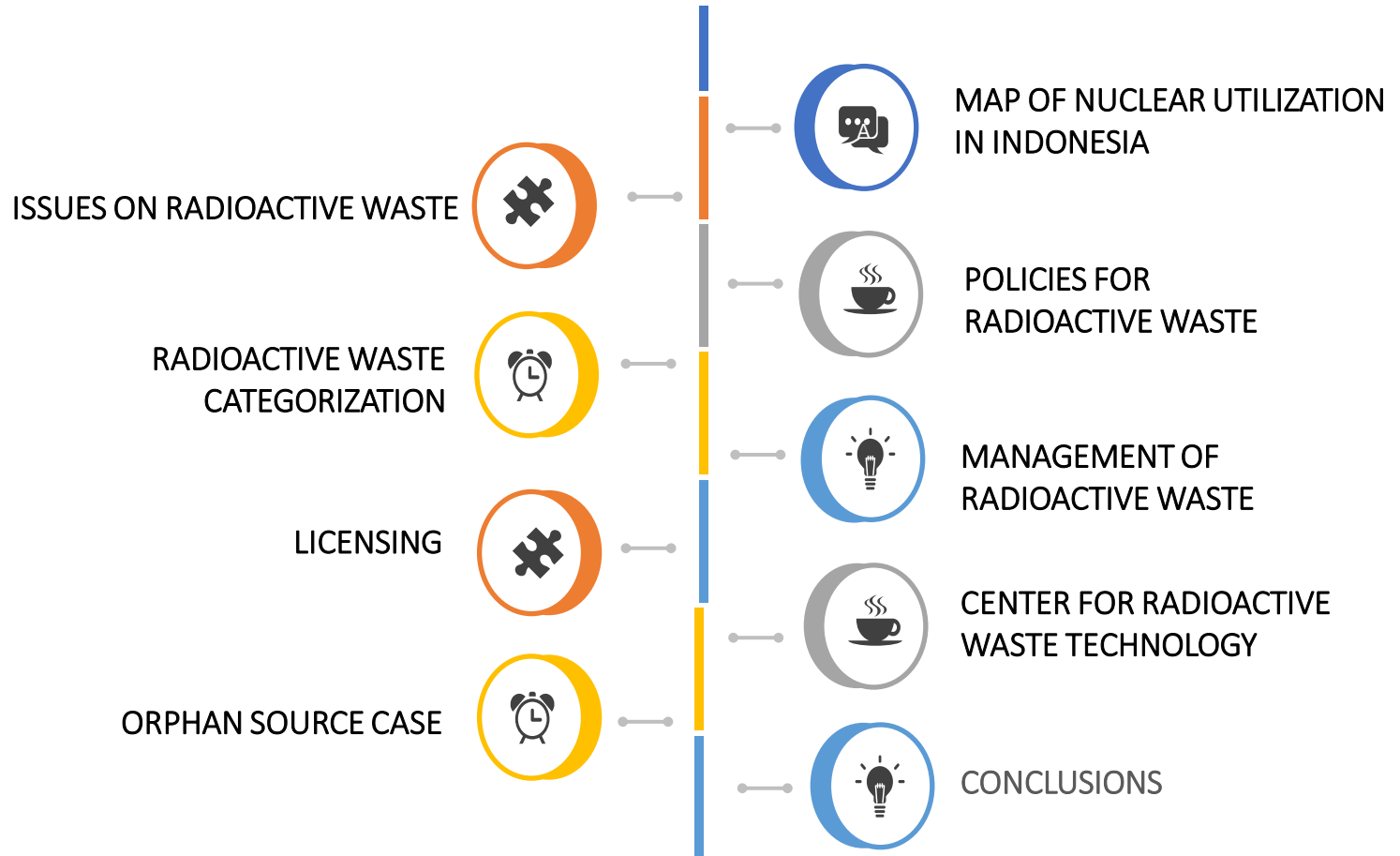
AUTHORIZATION OF RADIOACTIVE WASTE MANAGEMENT FACILITY IN SUPPORTING THE MANAGEMENT OF RADIOACTIVE SOURCES WASTE

E. Yulianti^a, A.S. Hermawan^b

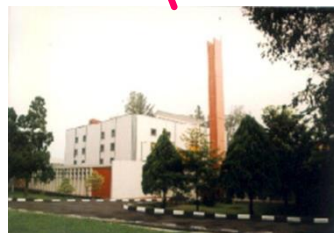
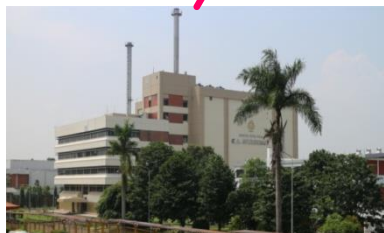
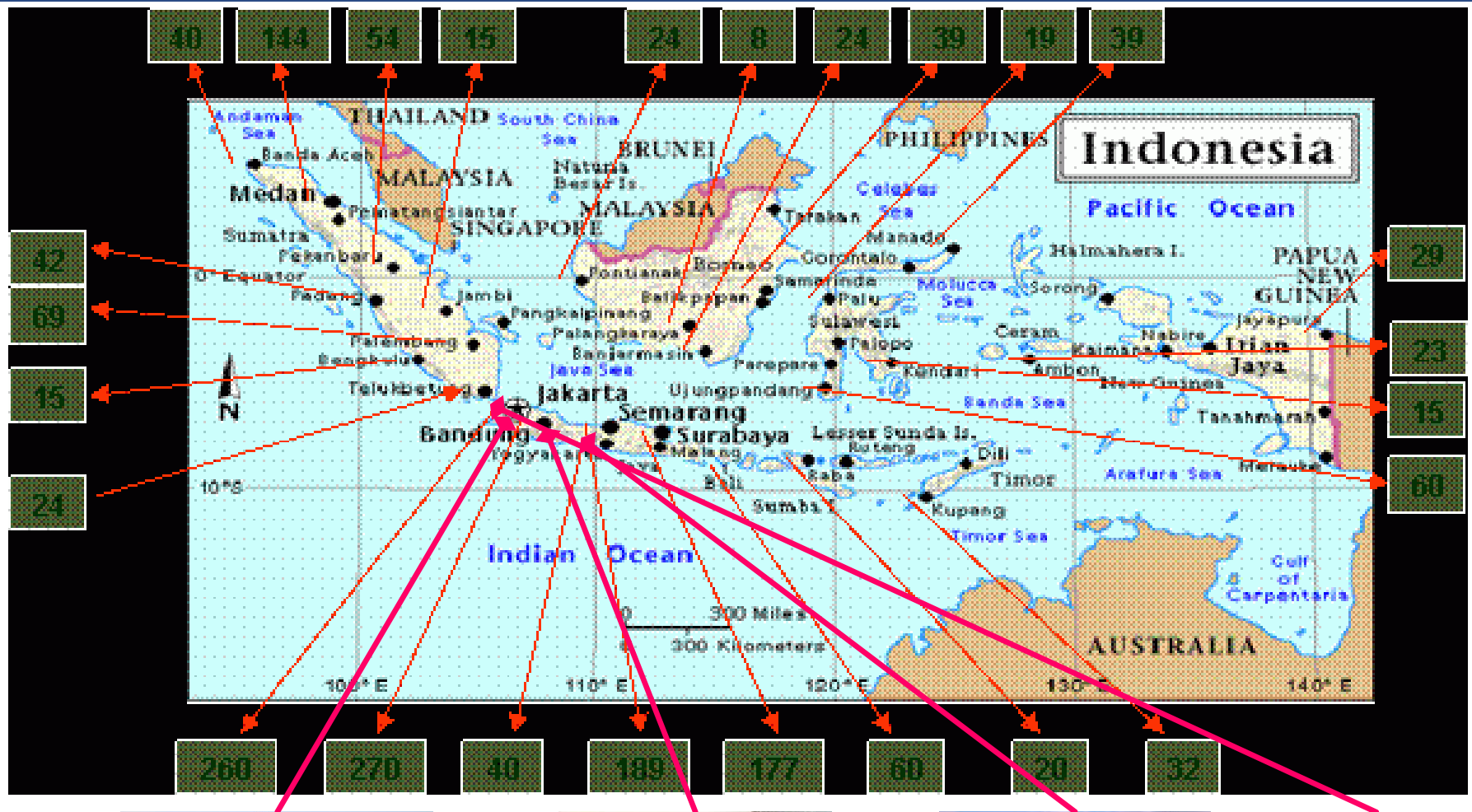
**^{a,b} Nuclear Energy Regulatory Agency (BAPETEN)
Jakarta, Indonesia**

**International Conference on Safety and Security of Radioactive
Sources: Accomplishments and Future Endeavours
Vienna, 20 – 24 June 2022**

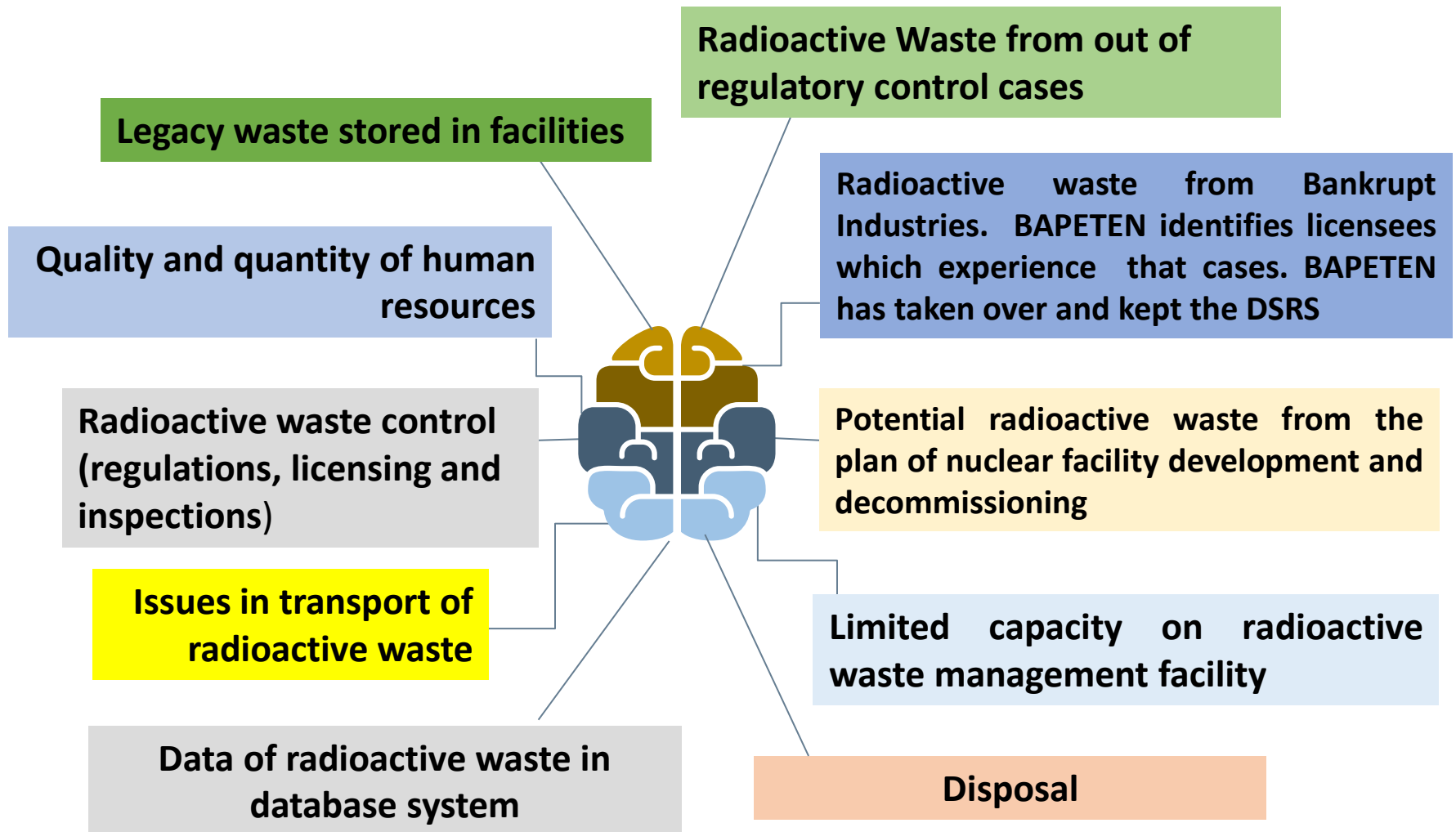
CONTENT



MAP OF NUCLEAR UTILIZATION IN INDONESIA



ISSUES ON RADIOACTIVE WASTE





**Act No. 10
of 1997**

GR No 5 of 2021

GR No 61 of 2013

GR No 2 of 2014

GR No 54 of 2012

GR No. 29 of 2008

GR No 33 of 2007

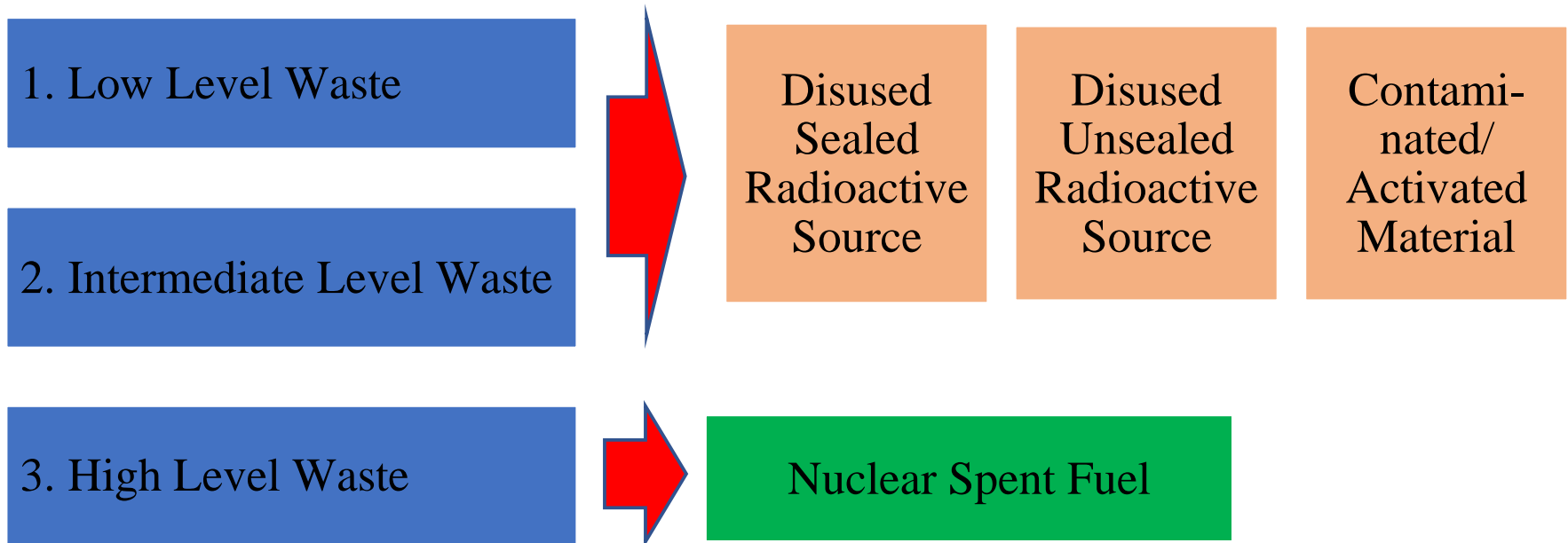
**BAPETEN CHAIRMAN
REGULATIONS**

REGULATION OF INDONESIA

POLICIES FOR RADIOACTIVE WASTE

- ACT No. 10 year 1997 on Nuclear Energy
- GR No 5 year 2021 on Risk Based Licensing
- GR No 58 year 2015 on Radiation Safety and Security on the Transport of Radioactive Source
- GR No 2 year 2014 on Licensing of Nuclear Installations and Nuclear Material Utilization
- GR No 61 year 2013 on Management of Radioactive Waste
- GR No 54 year 2012 on Safety and Security of Nuclear Installation
- GR No 29 year 2008 on Licensing of Utilizing on Ionizing Radiation Sources and Nuclear Material
- GR No 33 year 2007 on Safety of Ionizing Radiation and Security of Radioactive Source

RADIOACTIVE WASTE CATEGORIZATION

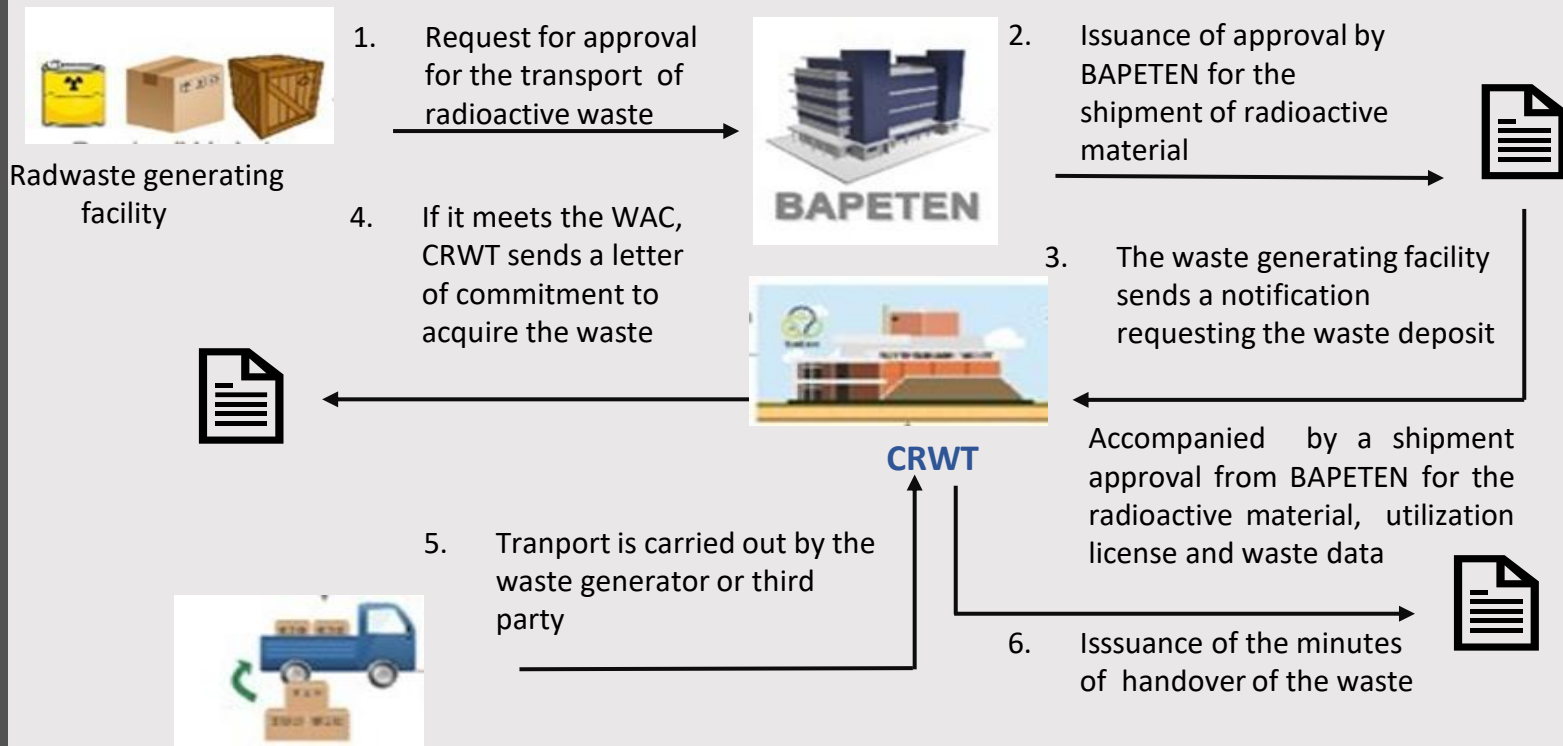


MANAGEMENT OF RADIOACTIVE WASTE

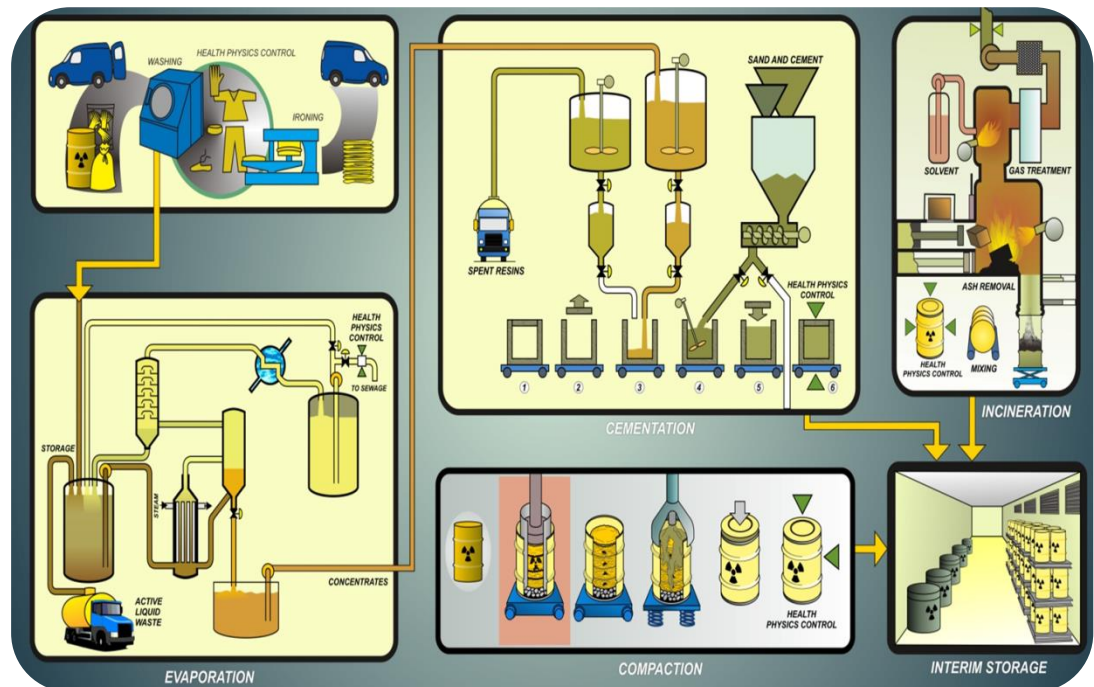
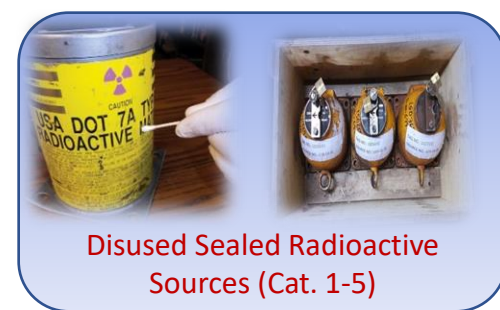
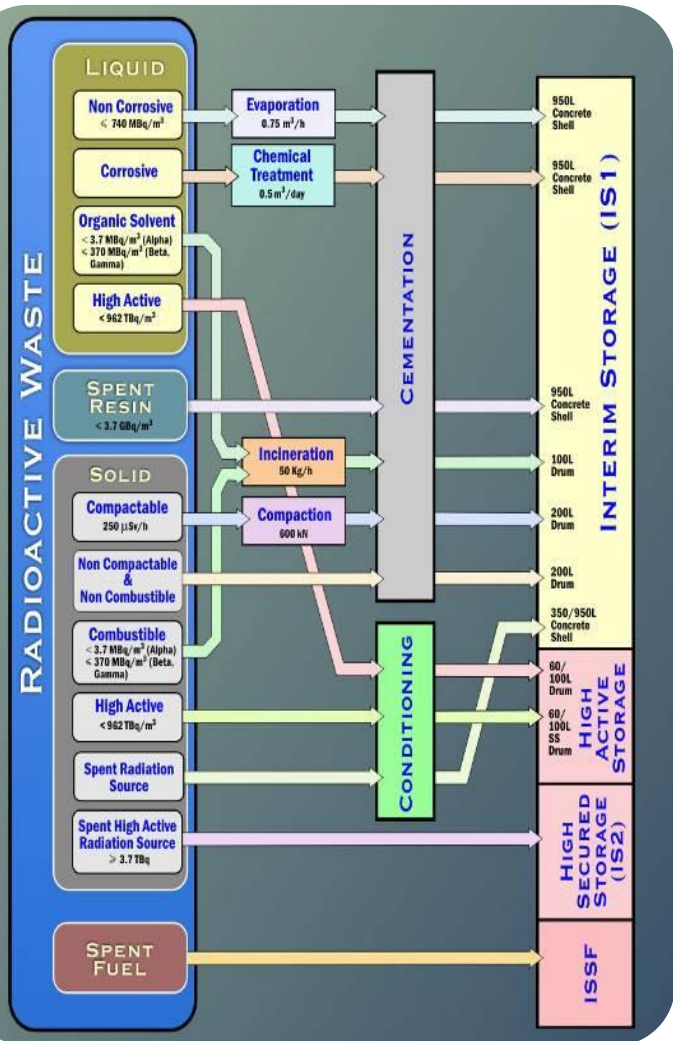
	Radioactive Waste Generating Facility	RWMC
Management of Disused Sealed Radioactive Source (DSRS)	Collecting & Sorting	Collecting & Sorting
	Sending radwaste back to source originating country, or delivering radwaste to RWMC	Treatment: activity decay, conditioning
		Interim Storage
		Transporting
		Disposal: near surface, medium depth
Management of Disused Unsealed Source, Contaminated/Activated Material	Collecting & Sorting	Collecting & Sorting
	Treatment: activity decay, volume reduction, composition change, conditioning	Treatment
	Temporary storage	Clearance
		Transporting
		Disposal: near surface, medium depth
Nuclear Spent Fuel	Temporary storage	Spent fuel interim storage
	Sending spent fuel back to originating country, or delivering to RWMC (spent fuel interim storage)	Final disposal

LICENSING

Phase	Required Documents	
Siting	<ul style="list-style-type: none"> Operating Procedure Technical Specification Radiation Safety & Security Equipment Radiation Safety/Security Programme Safety/Security Verification Report Health Evaluation Report of radiation workers Personnel Qualification data 	<ul style="list-style-type: none"> Site Evaluation Report Quality Assurance Implementation Report
Construction		<ul style="list-style-type: none"> Environmental Assessment Report Construction Programme
Commissioning		<ul style="list-style-type: none"> Construction Report Commissioning Programme Quality Assurance Programme Commissioning Report
Operation		<ul style="list-style-type: none"> Environmental Management and Monitoring Report Quality Assurance Programme Waste Acceptance Criteria Initial Closure Plan Financial Assurance for Closure
Closure		Closure Plan



CENTER FOR RADIOACTIVE WASTE TECHNOLOGY





ORPHAN SOURCE CASE

- Sources from bankrupt industries left without proper supervision. Those industries need to be assisted to send sources to radioactive waste management center.





CONCLUSIONS

- Policy improvement (i.e. Revision of regulations)
- Improvement/Development of Information System
- Improvement of Radioactive Waste Management Facility (IS 3, Cat. 1 and 2 source dismantling facility)
- Coordination among stakeholders



THANK YOU
TERIMA KASIH