

Strategy on the spent nuclear fuel management of the research reactors in Indonesia

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Abstrak

Indonesia is expected to apply the strategy of long term storage for spent fuel generated from the Serpong research reactor. The capacity of existing interim storage for spent fuel (ISSF) facility in principle able to accommodate all the spent fuel generated Serpong research reactor, but it must consider long-term conditions of the spent fuels and the wet storage facilities. This long-term strategy requires special attention to some parameters dealing with the water chemistry and the degradation of the materials. Besides it is necessary to build reserve space to deal with emergencies. After the Serpong reactor decommissioned, it is recommended to build the new dry storage to accommodate all of the spent fuel in another location since the Serpong area will be very dense residential in the decades to come. The most realistic future back-end scenario is if Indonesia has nuclear power plants (NPP), then the disposal of the spent fuel generated from research reactor in the future can be done in one location with commercial spent fuel from the NPP.