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Water Temperature Distribution in Spent Fuel Storage Pool of Nuclear Research Reactor in Indonesia

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Severe accidents at the Fukushima Dai-ichi nuclear power station became an important lesson learned to know the water temperature distribution at spent fuel storage pool (SFSP) of G. A Siwabessy nuclear research reactor in Indonesia. When the active cooling system was not functioning properly, the knowledge of the cooling water temperature in the SFSP became an important parameter related to SFSP safety. The research objectives to determine the cooling water temperature distribution in G. A. Siwabessy SFSP when the active cooling system was failure in function. The experimental method is used to know the temperature distribution in the pool water when the active cooling system is turned off for 87.18 hours. The experiment results show that the highest temperature of pool water when the active cooling system failure was 26.89°C. With the present spent fuel, the results obtained show that the temperature of the water in SFSP does not exceed the temperature value which can cause high evaporation of water and does not cause danger to the overall spent fuel integrity.

Do you wish to enter the YGE SFM19 Challenge?

Yes

Country or International Organization

Indonesia

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