

Thorium as a new commodity: Th resources in Brazil

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President Eisenhower's speech "Atoms for Peace" established in 1953 the basis for peaceful power generation via nuclear reactors, somewhat pursuing to "counterbalance" the moral effects of the Hiroshima and Nagasaki's horrors. In his own words "...this greatest of destructive force can be developed into a great constructive force for the benefit of all mankind."

U based experimental power reactors came into play in earlier 1950s as a consequence and evolution of Fermi's "Chicago Pile-1". However, it was sooner realized that no U mines were available for the building and expansion of such power plants and geological prospecting began for that purpose.

Since Th mines were known and Th is more abundant than U, Th based reactors were also studied and developed during the 1960s and they had quite promising beginnings in those days.

Such developments, on Th based reactors, were, however, abandoned in favor of U based power plants and resurges today due to several possible advantages on the safety and proliferation issues.

Moreover, with the renewed interest on REO production, due to the well known Chinese moratorium on their production, Th related issues came into play again, as a result of how to utilize or dispose Th byproducts.

This paper presents and discusses the potential geological and mine resources and reserves of Th contained ores and minerals in Brazil as gathered throughout the several discussions and meetings held on behalf of the IAEA Thorium Group during these last years.

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