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# LEGAL ASPECTS OF HANDLING AND DISPOSAL OF NUCLEAR WASTE – AN INDIAN PERSPECTIVE

P. Sree Sudha
*Dr. B. R. Ambedkar University,*
*Srikakulam, Andhra Pradesh,*
*E-mail: sirsudha.k@rediffmail.com*

## Abstract

India's rise as a global power has made it an extremely lucrative market, especially in the field of nuclear energy. Nuclear energy is often painted as a 'clean' energy option, and therefore a solution to climate change. Splitting the atom doesn't produce greenhouse gases, but the nuclear fuel cycle is far from clean: it produces radioactive waste that pollutes the environment for generations. As the most populous democracy in the world, India's energy needs far exceed its current capacity and to achieve this, the Government of India intends to draw twenty-five percent of its energy from nuclear power by the year 2050. This plan includes 20,000 MW of installed capacity from nuclear energy by 2020, and 63,000 MW by 2032. There are currently twenty operational nuclear power reactors in India, across six states. They contribute less than three per cent of the country's total energy generation, yet radioactively pollute at every stage of the nuclear fuel cycle: from mining and milling to reprocessing or disposal. There is no long-term radioactive waste disposal policy in India. India is one of the few countries in the world that is expanding its nuclear power sector at an enormous rate. Seven more nuclear reactors of 4800 MW installed capacity are under construction. At least thirty-six new nuclear reactors are planned or proposed. A critical subset of any country's nuclear safety approach is its radioactive waste management, in particular management of High Level Waste.

By recognizing the facts that nuclear safety and waste management are of utmost importance for success of the nuclear energy program, India ratified the Convention on Nuclear Safety (CNS) in 2005 and has recently submitted its second National Report for review. The CNS essentially seeks to commit Parties to maintain a high level of safety by setting international benchmarks based on the IAEA fundamental principles of safety, which cover design, construction, operation, the availability of adequate financial and human resources, assessment and verification of safety, quality assurance and emergency preparedness. Hence, it offers a dynamic comparative background for India to be bench-marked against and also an excellent source for ongoing follow-up and further research. An autonomous nuclear regulator and a transparent regulatory process are the critical components of an effective nuclear program. Society should be convinced that the highest safety standards are set while envisaging, designing and implementing nuclear power programs. At the international level, different models exist in regulating nuclear industry. In India, traditionally, the government had planned, operated and regulated all nuclear programs, be it power generation, medicine, water desalination and many other nuclear applications. The Atomic Energy Act, 1962 gives complete control over nuclear activities to the Central Government.

With this background scenario this paper aims to discuss various questions that arise in implementation of the Civil Liability for Nuclear Damage Act, 2010, such as "Is it effective?"; Is it providing adequate remedies to the victims of nuclear accidents?; "Is it practical?". In consonance with the objectives of the NLA to inter alia the paper aims to discuss and debate issues relating to the peaceful use of nuclear energy in India, and finally ends with conclusion.

*Keywords:* Nuclear Waste, International Conventions, Civil Liability for Nuclear Damage Act