



न्यूक्लियर पावर कॉर्पोरेशन
ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
**NUCLEAR POWER CORPORATION
OF INDIA LIMITED**
(A Govt. of India Enterprise)

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नलिनीश नगाइच
उत्कृष्ट वैज्ञानिक एवं
अधिशासी निदेशक (सी पी एवं सी सी)
NALINISH NAGAICH
Outstanding Scientist &
Executive Director (CP & CC)

Press Release

June 29, 2012

No Radiation leakage from Rajasthan Atomic Power Station

Rajasthan Atomic Power Station (RAPS) site has six units. The unit-1 is under long shutdown. Currently four reactors - units 2 to 4 are operating and the fifth reactor, unit-5 is under start up after completion of planned biennial shutdown. **It is to clarify that all the nuclear power reactors are safe and there has not been any radioactive leakage to the environment, as is being reported in certain section of the media.**

The reactors at Rajasthan Atomic Power Station are Pressurised Heavy Water Reactors (PHWRs) which use natural uranium as fuel. Heavy Water, which is used as Moderator & Coolant in these reactors, is essentially a derivative of ordinary water which has a heavier isotope of Hydrogen called Deuterium. Heavy Water is similar in appearance to ordinary water and is non radioactive till it is used in a nuclear power reactor. Tritium, a heavier isotope is formed from heavy water during operation of the plant. Small quantities of Tritium exist in the form of vapour in the reactor building.

Tritium is a soft beta emitter (of very low energy and can be stopped by a thin paper) and once it enters the body, as a natural process it comes out of the body within a week through urination and sweating.

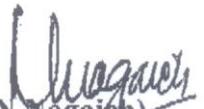
On June 23, 2012, an incident of tritium uptake of above Investigation Level (4 M/Bq/l) happened in the Unit-5 of Rajasthan Atomic Power Station (RAPS) which was under planned biennial shutdown. The Investigation Level of the tritium uptake is defined conservatively at about 1/10 th of the authorized annual limit specified by the regulatory body.

The incident was immediately reported to Atomic Energy Regulatory Board (AERB). The incident details were also promptly posted on NPCIL website (www.npcil.nic.in).

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Regd. Office : Centre-1, 16th Floor, World Trade Centre, Cuffe Parade, Colaba, Mumbai - 400 005.

The incident occurred when a modification work, as planned during the shutdown, for assuring a provision of alternate water addition to the moderator system in the Reactor -5 was being carried out. The uptake occurred due to inadvertent rise in tritium levels in a localized area of the containment building of the reactor -5. The localized increase in the Tritium concentration occurred due to the opening of the moderator cover gas line where the welding jobs were to be performed. There was absolutely no release of radiation to the environment. The workers are continuing to perform their normal duties, albeit in other areas of the station.

All the persons involved in the work were monitored as a regular practice. Two persons are likely to exceed the annual exposure limits specified by the regulatory body. The exposure of other persons is below the annual exposure limit specified. They have been assigned the work in non- radioactive areas as per the prevailing procedure applicable in such cases. The incident was reported to AERB. The incident has been investigated by the committee deputed by NPCIL and by AERB independently. The appropriate measures as suggested by these committees to prevent such incidents in future, will be implemented promptly.


(N. Nagajch)