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

PRESS RELEASE

June 30, 2012

PRE-SERVICE INSPECTION OF REACTOR PRESSURE VESSEL BEGINS IN KK-1

Pre-Service inspection of Reactor Pressure Vessel (RPV) of Unit-1 of Kudankulam nuclear power project has started today. This is an important activity in the commissioning of the unit before fuel loading.

The RPV is the heart of the reactor, which houses the fuel assemblies. This pre- service inspection will provide the reference base line data for future, apart from validating the functioning of automatic inspection machine. As the RPV will be inaccessible after start of operation, the subsequent inspections will be carried out remotely using the same machine. The in-service inspections of the RPV are to be carried out once in four years, during the lifetime of the plant. The pre-service inspection of the RPV and reactor internals is carried out as a part of normal practice during the commissioning of these reactors.

This inspection will take about 10 to 12 days. The report of inspection will be submitted to the Atomic Energy Regulatory Board for its review and obtaining clearance for fuel loading.

The inspection is carried out by the special high precision automatic, computer controlled and remotely operated machine which is designed to work under water.

The RPV has been manufactured in the Russian Federation to the highest quality standards. It has gone through rigorous inspection at various stages, right from the selection of material, from the billet stage to forging, fabrication, and post fabrication. The inspections have been carried out by experts from NPCIL and Russian Regulators. A specialist group of Atomic Energy Regulatory Board has reviewed the inspection details. After installation, during the hydro test, it has been tested to a pressure of 250 kg/sq.cm as against the normal operating pressure of 160 kg/sq.cm, which it has withstood successfully. During hot run with the dummy fuel operating conditions have been simulated and the performance of the vessel has met all requirements.

There are presently 20 nuclear power reactors with an installed capacity 4780 MW in the country. These have registered over 360 reactors – years of operation with an impeccable record of safety. The completion of the Kudankulam nuclear power reactors is expected to add 2000 MW raising the existing capacity to 6780 MW by the end of the current financial year.

(N.Nagaich) 30.06.2012