The 540 MWe, Unit-3 of Tarapur Atomic Power Project (TAPP-3) was synchronized with the grid on June 15. Atomic Energy Regulatory Board (AERB) has authorised synchronisation of the unit and raising its power level.

The 540 MWe Unit-3 of Tarapur Atomic Power Project (TAPP-3) attained criticality on May 21, 2006. This signifies the start of self-sustaining nuclear fission chain reaction in the reactor core. The criticality of Unit-3 came about two months ahead of schedule. Last year Unit-4 of this project, had achieved criticality on March 6.

Designed and built by the Nuclear Power Corporation of India Limited (NPCIL), a public sector undertaking under the Department of Atomic Energy (DAE), TAPP-3 is the 16th nuclear power reactor in the country. Many DAE units have provided valuable research and development and material inputs. Indian industry too played a major role in the supply of critical equipment and in meeting highly crashed construction schedules.

Tarapur Atomic Power Project-3 & 4 (TAPP-3 & 4) comprises two Pressurised Heavy Water Reactor (PHWR) units of 540 MWe each. PHWRs use natural uranium fuel and heavy water both as moderator and coolant.

TAPP-3 & 4, India’s largest nuclear power plant has been built in the shortest time of any PHWR in India. This gestation period is comparable to international benchmarks.

All major milestones of TAPP-3 have been achieved ahead of schedule.

For Unit-3, the time taken between criticality and synchronisation is about one-fourth of the time taken for Unit-4, which was synchronised with the grid on June 4, 2005.
the intramural TMH grants. The intermediate results of this study are very encouraging showing that simple low cost technology carried out by highly trained Primary Health Workers is effective in downstaging breast and cervix cancers.

A total of 85 salaried project staff members were involved in the study which primarily include the medical social workers, primary health workers, project assistants and the Data Management Team. The investigators, consultants and co-ordinator from Tata Memorial Hospital plan and guide the project team.

This study which is the first of its kind from a developing country is expected to guide the future policies on cancer control programmes in India and other resource poor countries. This study is also the only Randomized Controlled Trial that compares Clinical Breast Examination with noscreening.

**Anticipated benefits to the Developing Countries**

This trial when completed will provide the basis for utilizing low-cost technology tools in down-staging, cervix and breast cancers in societies that have limited financial resources. This programme of ‘Early Detection of Common Cancers in Women’ can be used as a Model for the planning an implementation of National Health Programme for control of cancers. In the rural areas it can be implemented through the already existing network of field level staff consisting of health workers. In the cities the programme can be implemented by a chain of municipal corporation dispensaries and hospitals. This low-cost effective technology for cancer detection in women will prove to be highly beneficial for the developing countries.

**Model Rural Cancer Control Programme**

The Tata Memorial Centre commissioned a Model Rural Cancer Control Programme in Ratnagiri and Sindhudurg districts of Maharashtra under the DAE Xth plan projects, on August 17, 2003. These districts were chosen since they have a high incidence/prevalence of common cancers but have very poor access to cancer care and health care in general.

Six Mobile Education-cum-Screening Units (MESUs) have been established as part of this programme.

The programme creates awareness regarding tobacco related cancers, breast and cervix cancers in the local population and conducts screening camps for the early detection of cervix, breast and oral cancers among women and oral cancer among men through village camps. Trained primary health care workers and nurses carry out the primary screening. Diagnostic confirmation is also done at the village through mobile First Referral Level Units (FRLUs) by trained doctors. Persons detected positive for any of the above cancers are treated locally at the B.K.L. Walavalkar Hospital at Dervan, near Chiplun, in Ratnagiri district, by consultants from Tata Memorial Hospital, who visit the site once a month.

Doctors from the BKL Walawalkar hospital are also trained during the project to enable them to treat cancer cases. Only patients requiring radiation therapy are required to travel to the Tata Memorial Hospital, Mumbai.

A proposal for setting up a Cobalt teletherapy unit at the BKL Walawalkar Hospital is under consideration. A cancer registry is also being set up to keep a track of the cancer morbidity and mortality in the region.

Around 5 lakh eligible men and women from the two districts are expected to participate in the screening programme. The screening will be completed by March 31, 2007.
Around 41,000 persons have been already screened till August 31, 2005 and 189 cancer cases have been detected and treated by the programme.

Another first in the area is the setting up of telemedicine services as integral part of the programme. Hardware, software and satellite communication for the telemedicine services are being provided free-of-cost by the Indian Space Research Organisation (ISRO).

Valuable benefits and outcomes of the Tata Memorial Centre Rural Outreach Programme are expected to be local capacity building and technology transfer, reduction of disease burden and economic gain. National human resource development for cancer control is another spin off from this programme. The first National Training Programme in Preventive Oncology organised by the Tata Memorial Centre Rural Outreach Programme during February 6-7, 2005, was attended by Medical Officers from Regional Cancer Centres across the country, who learnt the theory and practice of evidence-based screening for common cancers through rural community-based strategies.

The Tata Memorial Centre Rural Outreach Programme is expected to form the basis of future Cancer Control Programmes in the country.

This programme is being conducted by the ‘Department of Preventive Oncology’ of the Tata Memorial Centre in collaboration with the B.K.L.Walawalkar Hospital.

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