

TAMIL NADU NEWSPRINT AND PAPERS LTD
(Paper Manufacturers to the Nation)

BUILDING PROFILE:

Tamil Nadu Newsprint and Papers limited (TNPL) has its Corporate Office situated on the arterial road, Mount Road of Chennai, 600 032 surrounded by other prominent buildings like Dr. MGR Medical University, SPIC etc beside the sylvan surrounding of the Madras Race Club.



BUILDING FLOOR AREA AND OCCUPANTS:

The building was constructed and occupied in the year 1996 consisting of G+6 floors and 2 Basement floors. The total floor carpet area of the building is of 40722Sq.ft. About 46% of the area is occupied by TNPL and the balance by a MNC tenant M/s Ford Business Services Center till Jan 2006, subsequently by another Joint Venture Company, Technip in collaboration, M/s Technip, USA. Both these units occupied TNPL on account of easy accessibility and the uncomplicated construction and sound infrastructure.

SYSTEM:

- ❖ Central Utility blocks for chillers with refrigeration capacity of 270TR
- ❖ Water-cooled Air Handling Units of 23Nos.
- ❖ Electricity power supply from TNEB was availed through 11 KV feeder with sanctioned demand of 1000 KVA on 30.06.1995. The building was occupied in the month of December 1995. The sanctioned demand was reduced to 800 KVA on 29/05/1998 upon review based on actual requirement during 1996 & 1997.
- ❖ For measurement of actual energy consumption by TNPL and Tenant 12Nos of sub-meters were provided at various locations.
- ❖ Diesel Generator of 750KVA is utilised as 100% power back.

- ❖ Monitoring of temperatures with automatic scrolling system for effective plant operation.

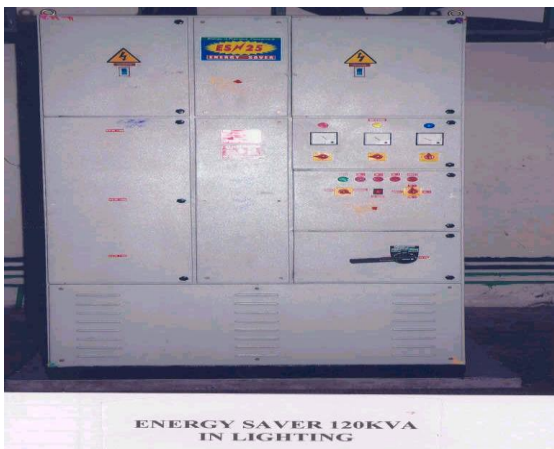
ENERGY CONSERVATION ACHIEVEMENTS IN 2007-08:

TNPL took initiative to conduct an in-house Energy Audit for the TNPL building Utilities for conservation of various resources. Some of the proposals which was taken up for implementation with results observed are as below:

- a) Replacing Fluorescent lamps of 40W with 11W CFL in the Staircase area of 15Nos
 - b) Pull chord switch fixed for switching off minimum 2 x40W – 10Nos
- Central Air Conditioning plant 270TR Analog Temperature gauge replaced with Digital Temperature monitoring unit for 90TR –2Nos and 45TR – 2Nos

ENERGY CONSERVATION ACHIEVEMENTS IN THE PREVIOUS YEARS:

I. Energy Saver equipment in Lighting Circuit of Electrical system with 120KVA rated. This resulted in reduction of power by 10-18% and thereby generating a saving of approximately 39000 units per annum equivalent to Rs.2 lakhs.



II. The performance Evaluation of the Central Air Conditioning plant was performed by M/s Central Scientific Instruments Organisation (CSIO), The Govt. of India organisation:

One of the important suggestion was to correct the rated flow in all the chillers by adjusting the balancing valve which resulted in power saving of 1,21,026 units per annum equivalent to Rs. 6 lakhs.

III. Improvement in Air Conditioning plant – One pump operation instead of two pumps done on trial basis at critical areas, saved upto 5280 units/annum amounting to Rs.26,400/- per annum at Rs.5/unit.

IV. 750KVA Diesel Generator parallel running pump stopped with rating of 7.5KW 3ph 415V.

Strategic operation of one pump of the two installed for cooling water circulation without affecting the performance of the DG has resulted in an annual saving of Rs.60,000/-.

V. Fixing of Electronic Ballast replacing Conventional chokes of 251 Nos was carried out resulting in a power savings of 10997 units with an equivalent amount of Rs.54,985/- @ Rs.5 per unit.

VI. Converting of CFL fixtures from 40W to 11W – 40Nos – brought in total power savings of 2700Units with an equivalent value of Rs.13500/- annum.

VII. Improvement in Air Conditioning system – Double door system for Air handling Unit in terrace of the building

TNPL has Ground + Six storied building. The sixth floor AHU is located in the terrace of the building. Even though the floor temperatures in 4th & 5th are maintained comfort level the 6th floor was not comfortable, due to radiation impact. A double door system was provided for the AHU room remitting in a saving of Rs.12,307units/annum equivalent of Rs.62,000/-

VIII. Improvement in Air Conditioning system – Providing door in the Ground floor access to the basement parking area.

TNPL has Ground + Six storied building. The Ground floor AHU of 35TR capacity has an open lobby with fountain in the centre of 1700sq.ft with cabins of 2800sq.ft. The lobby has access to the parking area in the Ist Basement. It was decided to provide a partition to delink the Ist basement. Such a step is observed to have caused a savings of 14,515units per annum an equivalent of Rs.72,000/-.

SAFETY:

Safety is given utmost importance in the maintenance of the building and the occupancy by MNC has given a boost to this aspect. The system of safety alarms are in place with clear demarcation of emergency exits etc. Fire mock drills are conducted regularly at a frequency of once in six months.

In TNPL there is a well defined Energy Management Policy which gives the impetus to the psychology of energy saving and reads as under:



TAMIL NADU NEWSPRINT AND PAPERS LIMITED

ENERGY MANAGEMENT POLICY

We, at Tamil Nadu Newsprint and Papers Limited, are committed to meet the energy needs through in-house generation with emphasis on

- + Maximising the usage of eco-friendly agro waste fuels for generation of energy.*
- + Continuous improvements in processes and equipments for efficient generation and usage of energy.*
- + Involvement of all employees for cost reduction in generation of steam and electricity and efficient utilisation of same.*
- + Contributing to the energy needs of the State by exporting surplus power.*
- + Reducing the Specific Energy Consumption by 2% every year for 5 years through various energy conservation measures.*

P. Rama Mohana Rao
P. Rama Mohana Rao I.A.S.
Chairman and Managing Director

22/11/2002

Thus energy conservation is a continuous process and the impact of the above mentioned efforts are clearly visible in the performance report. Such visible improvement encourages us to strive further and with the unstinted support of the Management we are in the process of raising the bar for performances to further higher levels.