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Besides, the CPHEEO implements AUWSP for small towns (scrutinizing/approving the schemes received from State Departments from techno-economic angle), solid waste management in 10 airfield towns, sponsors research studies, organises training courses for the in-service engineers working in the water supply and sanitation sector. It has developed computer software for design of water supply distribution networks, sewerage networks, economical size of pumping main & distributed them to all the States & ULBs for extensive use. To its credit, it has prepared and published the following Manuals, which are technical guidebooks for the help of field engineers:

1. Manual on Water Supply & Treatment, Third Edition, Revised-updated, May 1999.
2. Manual on Sewerage & Sewerage Treatment, Second Edition, 1993.
3. Manual on Municipal Solid Waste Management, 2000.

Greater Shillong Water Supply Project – 7.5 MGD Water Treatment Plant

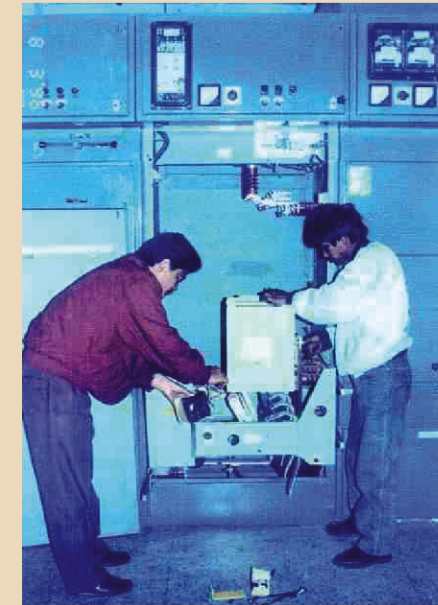
↓ CLARIFLOCCULATOR: Water from the flash mixer flows through 600 mm size central shaft of the clarifier and enters the flocculating zone 1.5 m dia, 5 m effective depth through four openings in the shaft. In the flocculator, water is stirred by three sets of paddles. Then the water passes to the clarifier of size 37 m dia and 4 m deep. The settled water from the clarifier passes to the battery of 6 nos. of rapid gravity filters.



↑ RAW WATER CHANNEL: Raw water through the inlet channel is received in inlet chamber. The rate of flow of raw water is measured by flow meter. Alum solution from the constant dosing tank flows directly through a taper needle valve at preset dosage, which adjusts itself automatically to any change in the flow rate of water. The raw water then enters the flash mixer where the coagulant is added and rapidly mixed.



↑ Control soles for 6 nos. rapid sand filters. The 7.5 MGD water treatment plant at Mawphlang is one of its kinds in the North East to be installed with pneumatic operation.



← Maintenance of the HT motor control centre in progress. The electric motors installed are directly fed with a voltage of 6.6 Kv.

→ Battery of 6 nos. BHR 35-30° 4 stage self water lubricated pumps installed in the intake pumping station. Each pump has a transmission line of 38 m.



MANUAL ON

OPERATION AND MAINTENANCE OF

WATER SUPPLY SYSTEMS



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CENTRAL PUBLIC HEALTH AND ENVIRONMENTAL ENGINEERING ORGANISATION

MINISTRY OF URBAN DEVELOPMENT
NEW DELHI

In collaboration with



World Health Organization

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Ministry of Urban Development

The Ministry of Urban Development is the nodal Ministry in charge of various aspects of Urban Development including Urban Water Supply and Sanitation in the country. The Ministry formulates of policies, strategies pertaining to aspects of urban development including water supply, sanitation and municipal solid waste management and implements Centrally sponsored Accelerated Urban Water Supply Programme (AUWSP), Solid Waste Management & Drainage in 10 Airfield Towns, Public Health Engineering Training Programme etc. The Ministry also facilitates funding from external & bilateral agencies for urban water supply and sanitation sector.

Central Public Health & Environmental Engineering Organisation (CPHEEO)

The CPHEEO was constituted under the erstwhile Ministry of Health & Family Welfare, Directorate General of Health Services (DGHS) in 1953 as per the recommendations of the Environmental Hygiene Committee to deal with water supply and sanitation in the country. In 1973-74, the CPHEEO was affiliated to the Ministry of Urban Development (erstwhile Ministry of Works & Housing). It is functioning as the technical wing of the Ministry. Though water supply and sanitation is a State subject, the policies, strategies and guidelines are being provided by CPHEEO to the States & U.Ts. Governments including Municipal Corporations/Committees. The CPHEEO plays a vital role in processing the schemes posed for World Bank/Bilateral & Multilateral agencies and institutional financing such as LIC. It acts as an Advisory body at Central level to advise the concerned State agencies and Urban Local Bodies (ULBs) in implementation, operation & maintenance of urban water supply, sanitation and solid waste management projects and helps to adopt latest technologies in these sub sectors.

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