Paryavaran Bhavan, CGO Complex, Lodi Roed, New Delhi- 110 003. Dated the 28th September, 1992.

us (port)

OFFICE MEMORANDUM

Sub :- Construction of New Satellite Port at Ennore near Madras in Temil Nedul

Reference is invited to Ministry of Surface Transporti: above subject.

2. The proposal has been examined and is accorded clearant from environmental angle subject to the following conditions:

- (1) The total land area of the project should be limited to 400 hectares as proposed;
- (ii) Hill features of Karikal and Bodaparai hills should not be destroyed for requirement of stone for the construction of breakwater, since this will drastically change the local landscape;
- (iii) Quarrying operations must be carried out with wimost care giving consideration to the topography, vegetation and drainage system in consultation with expert institutions like the Centre for Mining Pavironment, Indian School of Mines Dhanabad. Quarrying sites must be rehabilitated properly keeping in view such measures as proper terracing, addition of top soil and reforestation. Major blasting in the port area should not be undertaken;
- (iv) A detailed Environmental Management Plan should be prepared for each of the quarry sites proposed and proper land scaping should form a part of these operations. This should be included as a condition in the contracts. Its full implementation is the responsibility of the project authorities;
- (v) Alternate sources of water supply other than tapping of ground water through bore wells must be explored to avoid intrusion of salt water since fresh water is scarce in the Island. A specific study should be undertaken on the ground water potential, recharge capacity, present drawal and future plans in an integrated manner.

.,.,2/-

State/Central Ground Water Boards should be fully involved in this study. The report should be submitted within one year;

- (vi) Dredging operations must be undertaken in stages in consultation with some expert institution like Central Water and Power Research institution like Central Water and Power Research Station (CWPRS) Khadak-Vasala, Pune, in such station (CWPRS) Khadak-Vasala, Pune, in such station of the surface water quality which must deteriorate the surface water quality which must be maintained within the prescribed standards be maintained within the prescribed standards water quality parameters viz. turbidity, water quality parameters viz. turbidity, dissolved oxygen, ammoniacal nutrients in waters should be measures on regular intervels to should be measures on regular intervels to monitor water quality. Dredging material should not be used for filling up any water-body,
- (vii) Large scale dumping of wastes shall not be undertaken by the project authorities without clearance from environmental angle. This is to ensure that marine ecology of the area is not affected by dumping in the marshy lagoon/low level areas;
- (viii) A green belt of appropriate width (say 200 metres must be provided all along the periphery of the port excluding the water areas. Adequate provision for the initial cost for greening and maintenance has to be made in the project cost and subsequent annual budget for the port;
- (ix) Green belt development of 50 hectares of land instead of 25 hectares proposed inside the port should be developed. This may be spread in should be developed. This may be spread in different pockets in vacant areas and need not be concentrated in one area. Apart from this a green belt area of about 5.0 million square metres available in the island should be susteined by providing proper maintenance. Appropriate fund allocation for initial costs for greening and maintenance of 50 hectares of land and 5.0 million square metres available green belt in the island has to be provided for in the project cost and subsequent annual budgets for the port;
 - (x) Suitable low-lying areas should be identified for mangrove plantation and provision of the required amount must be made for this purpose in the project cost by the project authorities;
 - (xi) The project authorities must ensure that no cutting of trees takes place in the project area;

State/Central Ground Water Boards should be fully involved in this study. The report should be submitted within one year;

- (vi) Dredging operations must be undertaken in stages in consultation with some expert institution like Central Mater and Power Research Station (CWPRS) Khadak-Vasala, Pune, in such a way as to ensure that these operations do not deteriorate the surface water quality which must be maintained within the prescribed standards be maintained within the prescribed standards water quality parameters viz. turbidity, water quality parameters viz. turbidity, dissolved oxygen, ammoniacal nutrients in waters should be measures on regular intervels to should be measures on regular intervels to monitor water quality. Dredging material should not be used for filling up any water-body,
- (vii) Large scale dumping of wastes shall not be undertaken by the project authorities without clearance from environmental angle. This is to ensure that marine ecology of the area is not affected by dumping in the marshy lagoon/low level areas;
- (viii) A green belt of appropriate width (say 200 metres must be provided all along the periphery of the port excluding the water areas. Adequate provision for the initial cost for greening and maintanance has to be made in the project cost and subsequent annual budget for the port;
 - (ix) Green belt development of 50 hectares of land instead of 25 hectares proposed inside the port should be developed. This may be spread in should be developed. This may be spread in different pockets in vacant areas and need not be concentrated in one area. Apart from this a green belt area of about 5.0 million square metres available in the island should be metres available in the island should be sustained by providing proper maintenance. Sustained by providing proper maintenance of for greening and maintenance of 50 hectares of for greening and maintenance of 50 hectares of land and 5.0 million square metres available green belt in the island has to be provided for in the project cost and subsequent annual budgets for the port;
 - (x) Suitable low-lying areas should be identified for mangrove plantation and provision of the required amount must be made for this purpose in the project cost by the project authorities;
 - (xi) The project authorities must ensure that no cutting of trees takes place in the project area;

...3/-

- (xii) With the operation of the Ennors Port, as a measure of decongestion of Madras Port, the traific in Madras Port must be gradually reduced. Ministry of Surface Transport, Madras Port Trust and Ennors Fort Trust must ensure that adequate measures in this regard are taken;
- (xiii) To control dust pollution from coal following measures must be adopted:
 - Totally anchored continuous loaders/unloaders and conveyor system should be adopted;
 - dust extraction system should be provided
 at all transfer points;
 - to minimise dust generation during stacking, loading, transferring operations, as well as to minimise wind belown dust from the stack yard proper, water spraying should be done.
 - (xiv) Air pollution; mitoring stations at trategic locations must be set up in the port area and in the neighbourhood for monitoring of dust/particulate matter at regular intervals. Adequate funds must be allocated towards this in the project cost;
 - (xv) To contain noise levels within the prescribed standa ds repled conveyor belts should be deployed. Noise pollution in the port area sould be reduced by putting up sound barriers at suitable locations. To protect the workers from high noise lavels ear muffs/plugs should be provided;
- (xvi) Mater pollution monitoring stations at strategic points must be set up in the project area to monitor water quality and marine pollution at regular intervals:
- (xvii) To contain accidental spillage of oil, the project authorities should deploy oil booms, multipurpose anti-pollution craft, oil recovery cum reception draft, chemical dispersant and other equipments such as showels, swabs, waste collection bags etc.;
- (xviii) An Environmental Division must be set up in the Fenore Port headed by an Environmental Manager with appropriate strength of Environment Engineers, Forest Officers, Forest Guards, and other laboratory staff. An Environmental Laboratory for Air, Water and solid waste monitoring must be set up with adequate equipmental and qualified staff. Adequate funds for

establishment of the Laboratory must be provided in the project cost. The annual recurring cost for the laboratory and Environmental Division must be provided for in the annual budget of the Port;

- (xix) The Ennore Port Trust authorities must draw up a Dissaster Management Plan and get it approved by the nodal department of the State Government and forward it to this Ministry for approval;
- Adequate measures must be taken to protect the Pulicat Lake, a Bird Sanctuary, for several species of resident and migratory Water-Birds and having potential for fishing as an important economic activity of the area;
- A monitoring committee will be set up by the project authorities to review the implementation of the above conditions with representative from Ministry of Environment and Forests, State Forest Department, State Environment Department, State Pollution Control Board and representative of Port Authority;
- (xxii) The quality of treated effluents, solid wastes, emissions and noise levels etc., must conform to the standards laid down by the competent authorities including Central/State Pollution Control Boardsand under the Environment (Protection) Act, 1986, whichever are more stringent; and,
- (xxiii) The project authorities must ensure that project oustees if any must be adequately compensated and rehabilitated.
- 3. Adequate financial provision must be made in the project estimates and the annual budget to meet the financial requirement for the implementation of the aforesaid safeguards. The funds so provided itemwise should not be diverted for any other purpose.
- 4. In case of any deviation/alterations in the project proposal from those submitted to this Ministry for clearance and on the basis of Environmental Impact Assessment findings these stipulations may be modified and/or new ones imposed for ensuring environmental protection.

5. These stipulations will be enforced among others under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986.

JOINT DIRECTOR (SCIENTIFIC)

To

The Secretary,
Ministry of Surface Transport,
Parivahan Bhavan,
Parliament Street,
NEW DELHI - 110 001.

Copy to:

- 1. Chairman, Hadras Port Trust, Rajaji Salai, Madras-60000'
- 2. Chairman, Tamil nadu Pollutton Control Board, 32, Santhon High Road, 3rd & 4th Floors, Madra 2-600 004.
- 3. Secretary and Commissioner, Forest and Environment Department, Govt, of Tamil Redu, Fort St. George, Hadrage 600 009.
- 4. Chief Conservator of Forests, Regional Office of Couthern Zone, Ministry of Environment and Forests, No. 463, Ist Main, Illrd Block, Illrd Stage, Basavesman Hagar, Bangalore. 560 079.
- 5. Chairman, Central Pollution Control Roard. CBD-cum-Officomplex, Parivasi Bhayan, Rast Arjun Magar, Shahdara, Delhi- 110 032.
- 6: DIG(FC), Regional Office Incharge, Ministry of Environm and Forests, Paryayaran Enavan, New Delhi:
- 7. Guard file:

JOINT DIRECTOR (SCIENTIFIC)