



No.23-13(1)/2001-HSMD

Dated the 26<sup>th</sup> December, 2002

To

M/s Hindustan Lever Ltd.,  
Hindustan Lever House,  
165/166, Backbay Reclamation,  
Mumbai-400020-25.  
(Attention: Shri Ashok Gupta, GM, HLL)

Sub: **Export of glass cullets containing mercury, to the United States of America  
– permission regarding.**

....

This has reference to M/s Hindustan Lever Limited's application dated 31<sup>st</sup> August, 2001 and subsequent communications/clarifications dated 30<sup>th</sup> September 2002, 27<sup>th</sup> October and 4<sup>th</sup> December, 2002 seeking approval of this Ministry for exporting mercury-contaminated wastes (2,56, 200 Kg of glass cullets containing virgin mercury and 17.5 tonnes of ETP sludge) generated by the Mercury Thermometer Manufacturing Unit of M/s Hindustan Lever Limited at Kodaikanal, Tamil Nadu from India to M/s Bethlehem Apparatus Co., Inc., Pennsylvania, USA for the purpose of recovery of mercury.

2. The matter has been examined carefully under the provisions of Hazardous Wastes (Management and Handling) Rules, 1989 as amended in January 2000 as well as the Basel Convention on the Control of Trans-Boundary Movements of Hazardous Wastes and their Disposal. This transboundary movement of hazardous waste containing mercury has the necessary approval of the United States Environmental Protection Agency. An agreement has been signed between the Government of India and the Government of United States of America in this regard and the necessary bank guarantee has also been furnished by M/s Hindustan Lever Ltd.

3. Keeping the foregoing in view, the Ministry of Environment & Forests hereby accords its permission for the export of mercury contaminated wastes as detailed at para 1 above subject to following terms and conditions.

- This Transboundary movement shall be governed by all the terms and conditions included in the Agreement referred to in Para 2 above.
- This movement will be governed by the provisions of the Hazardous Wastes (Management and Handling) Rules, 2000 as well as the relevant articles of the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal and shall be effected strictly as per the details submitted in Form 7 by M/s Hindustan Lever Ltd.
- This movement of the hazardous waste containing mercury shall be completed before 9<sup>th</sup> October, 2003.

- Ministry should be kept informed in writing about the transboundary shipment/movement at every stage and soon after completion of the task.

This issues with the approval of the competent authority.

*Usha Subramaniam*

(Usha Subramaniam)  
Joint Director

Copy for information to:

- The Member- Secretary, Tamil Nadu Pollution Control Board, 100, Anna Salai, Chennai-600032.
- The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, Shahadra, Delhi.
- Shri Bhaskar Doss, Chairman, Chennai Port Trust, Rajaji Salai, Chennai-600 001.
- DGFT, Ministry of Commerce and Industry, Udyog Bhavan, New Delhi-110001.
- The Counselor for Science, Technology, Environment & Health Affairs, Embassy of the united States of America, Shanti Path, Chanakyapuri, New Delhi-110021.

*Usha Subramaniam*

(Usha Subramaniam)  
Joint Director

(कम. सहायिका)  
USHASUBRAMANIAM  
संयुक्त सचिव/Joint Director  
पर्यावरण एवं वन विभाग  
Ministry of Environment & Forests  
एन.एन.टी./New Delhi

(कम. सहायिका)  
USHASUBRAMANIAM  
संयुक्त सचिव/Joint Director  
पर्यावरण एवं वन विभाग  
Ministry of Environment & Forests  
एन.एन.टी./New Delhi

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## TAMIL NADU POLLUTION CONTROL BOARD

From

Tmt. Sheela Rani Chunkath, I.A.S.,  
Chairperson,  
Tamilnadu Pollution Control Board,  
76, Mount Salai, Guindy,  
Chennai - 32.

To

Thiru R. John George,  
Factory Manager,  
M/s. Hindustan Lever Limited,  
Thermometer Factory,  
St. Marys Road,  
Kodaikanal - 624101.

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Lr. No: HWM/27566/95-1      dated: 12.03.2003.

Sir,

Sub: TNPC Board - Hazardous Waste Management -  
M/s. Hindustan Lever Ltd., - Thermometer Factory-  
Kodaikanal - Export of Mercury bearing wastes to -  
M/s. Bethlehem Apparatus Coy, Pennsylvania USA-reg..

- Ref: 1. MOEF Govt. of India Lr. No: 23-13 (1)/2001-  
HSMD dt: 26.12.2002.  
2. Minutes of the Meeting held on 11.10.2002.  
3. Lr. dt: 27.2.2003 received from Thiru Navroz  
Modi, Committee Member.

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I am to invite your kind attention to the reference I~~st~~  
cited and enclose herewith the copies of the reference II and  
III~~st~~ cited above. In this regard you are requested to export  
the accumulated stocks of mercury, mercury in unfinished <sup>finished</sup> thermo-  
meters, Glass scrap stored on site, mercury containing Effluent  
Treatment Plant sludge to M/s. Bethlehem Apparatus Coy Inc.,  
Pennsylvania USA for the purpose of recovery of Mercury in compliance  
conditions imposed in the reference I~~st~~ cited. The packaging and  
despatch of the material to the designated port of export shall

100, ANNA SALAI, GUINDY, CHENNAI-600 032.      -2-

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# TAMIL NADU POLLUTION CONTROL BOARD

-2-

be made in the presence of officials of Tamilnadu Pollution Control Board and in the presence of the members of the working committee who are <sup>willing</sup> working to be present.

The wastes shall be transported in compliance with the provisions of the Hazardous Waste (Management and Handling) Rules 1989 as amended in 2000 as well as the Environment (Protection) Act 1986.

The receipt of this letter may be acknowledged.

Encl: as above.

*J. Rohit Kumar*  
17/3/03  
for MEMBER SECRETARY.

vr/1732003.

100, ANNA SALAI, GUINDY, CHENNAI-600 032.

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101

Minutes of the meeting of the working committee held on 11.10. 2002 at the Environmental Training Institute class room, Tamilnadu Pollution Control Board, Chennai- 600032 on mercury Contamination due to m/s Hindustan Lever Ltd (Thermometer Factory), Kodaikanal Dindigul District :

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At the outset the Chairman of the Working Committee, welcomed the members, representatives of M/s Hindustan Lever Limited and other participants. He recalled briefly the incidents that had occurred and the various reports furnished by M/s Hindustan Lever Limited towards Environmental Assessment of the site and Risk Assessment due to Mercury contamination in the environs of the Thermometer Factory of M/s Hindustan Lever Limited which functioned at Kodaikanal. The representatives of M/s Hindustan Lever Limited were requested to make a presentation on the following reports:

- i) Environmental Impact and Risk Assessment for Mercury
- ii) Health and Safety Plan- Site Remediation
- iii) Remedial Action Plan.

Mr Paul Whincup (ERM), Mr Damika Wickrema Singhe (URS Dames & Moore) and Mr Tom Van Tuenenbroek (TNO- Netherlands) made a presentation on the above said reports and on the field investigation under taken by them. After the presentation the

committee members expressed their concern over the variations in the material balance in respect of mercury and pointed out that the loss of mercury into the environment which appeared to be substantially higher than permissible levels would require a more precise determination. The committee called on HLL to furnish documented data on material use and inventory of all materials and machineries on site so that the Tamilnadu Pollution Control Board may verify the information prior to removal of material from the site.

The committee members also stressed that the mercury levels at the site be reassessed while carrying out the remediation works and the impact of both upper limit and lower limit of unaccounted mercury to be investigated while the remedial works are in progress. However the committee members were of the unanimous view that the entire plant & machinery which had come in contact with mercury should be scrapped and that the entire stock of mercury at site should be exported to authorised recycling facility abroad. Committee members were also of the view that the remediation measures at the site should not be initiated unless the entire stock of mercury available at site as elemental mercury, mercury in finished and semi-finished thermometers and in broken or crushed glass is packed, labeled, recorded and sent for reclamation to the facility identified by M/s Hindustan Lever Ltd in USA with prior approval of all concerned authorities. After detailed discussions the following decisions were arrived at.

- i) The mercury balance information presently submitted by the consultant is considered preliminary. Mercury balance shall be reworked and finalised by the Tamilnadu Pollution Control Board after obtaining additional data input requested from HLL, and verification of the same against the stock, and from sampling and resurveying of the site prior to the commencement of remediation work.
- ii) The remediation work at the site shall be initiated with the approval of TNPCB only when the Hindustan Lever Limited (Thermometer Factory), site is cleared of all accumulated stocks of mercury in various forms namely elemental mercury, mercury in finished and semi-finished thermometers, in broken or crushed glass and ETP sludge. Till such time no drilling, digging or demolition at the site shall be carried out without prior permission of Tamilnadu Pollution Control Board. Initially, hot spots containing elevated levels of mercury shall be prioritized for remediation after assessing the exact number of such hot spots. The mercury bearing material shall be removed from the site and transported by adhering to the

107

Protocol which is to be approved by the Tamilnadu Pollution Control Board. Till such time, one person from the Inspectorate of Factories may be posted at the site to ensure that there is no tampering at the site and Tamilnadu Pollution Control Board may address the Chief Inspector of Factories. It may be mentioned that HLL informed the Committee that around Feb-March they had without permission excavated the flooring of the factory and removed highly contaminated soil from below.

- iii) In case it is possible to obtain necessary approval within four months to export the mercury and mercury bearing waste indicated in item above to the USA, the material may be transported directly to the concerned ports for further export. In case it extends beyond four months the mercury and mercury bearing waste lying onsite shall be transported to plains and stored in a transit storage facility approved by Tamilnadu Pollution Control Board by following all relevant protocols till the mercury and mercury bearing glass scrap is exported to the country of origin.
- iv) Though the consultants M/s URS Dames and Moore & TNO Netherlands, engaged by M/s Hindustan Lever had recommended that the site be remedied up to a level of 10 mg/kg of mercury as per Dutch Standards of Urban Residential areas. It was suggested that after the remediation is over one more survey would be conducted by Hindustan Lever Ltd , to ensure that all soil containing more than 10 mg/kg of mercury is removed.
- v) As informed Thiru Navroz Mody will furnish details of supportive documents related to limits for mercury namely 0.03mg/kg to decide the limit to be specified for remediation considering the ecological sensitivity of the site and will furnish details of inconsistencies felt or observed if any in the report furnished by the consultant. To help expedite the matter, Mr.Mody was requested to furnish the above before March 2003.
- vi) Unused, uncontaminated stem glass and broken glass from non mercury section shall be isolated after proper listing, inspected, monitored and returned back preferably to the original supplier with the approval of concerned authorities. In case the thermometer stem glass cannot be returned to the original supplier the stem glass shall be crushed defaced and sold as scrap. Hindustan Lever Limited shall also work out the material balance for glass consumption.

- vii) The entire plant and machinery which had come into contact with mercury shall be destroyed rendered unusable and scrapped after decontamination with the approval of the Tamilnadu Pollution Control Board.
- viii) HLL have agreed to provide records pertaining to all ex-workers whoever asks for them in writing, including to families of those who expired after employment at the factory. The Committee suggests that the findings of the company on health impacts be reviewed by an appropriate authority.
- ix) Regarding the medical surveillance and occupational health aspects Thiru Navroz Mody committee member suggested that the Board makes an independent review of the health records and medical examination carried out by the unit for the employees by an outside competent agency. However other committee members suggested that the aggrieved employees prefer an appeal against the orders by which they are aggrieved and suggested that the Tamilnadu Pollution Control Board may ask the Factory Inspectorate to investigate the health records and review the medical examination carried out by the unit for its employees. However it was once again advised that the Government in the Labour Department might be approached regarding occupational health related issues.