

KODAIKANAL, INDIA

We are sometimes asked about a breach of our environmental operating guidelines at our former thermometer factory at Kodaikanal, India.

THE FACTS

Our Code of Business Principles commits us to conducting our operations with honesty, integrity and openness. In line with these Principles, we have summarised below how this breach of our guidelines occurred as the facts of this issue are often misunderstood or misrepresented. The facts are that:

Hindustan Unilever Limited (HUL)¹ did not dump glass waste contaminated with mercury on land behind its factory. Glass scrap with residual mercury had been sold to a scrap dealer about three kilometres away from the factory, in breach of our guidelines. HUL immediately closed the factory and launched an investigation.

There were no adverse impacts on the health of employees or the environment. This has been confirmed by many independent studies. There was limited impact on the soil at some spots within the factory premises which required remediation.

With the necessary permits from the US and Indian governments, the recovered glass scrap was sent to the US for recycling in 2003. In 2006, the plant and machinery and materials used in thermometer manufacturing at the site were decontaminated and disposed of as scrap to industrial recyclers.

After extensive assessment and testing, final permission for remediation of the soil was granted in July 2008 by the statutory authority, the Tamil Nadu Pollution Control Board (TNPCB). Pre-remediation work was started in 2009 at the site. However, in 2010, the TNPCB decided to revalidate the soil clean-up standard in response to NGO requests. On August 10th, 2015, HUL submitted a Detailed Project Report (DPR) for soil remediation to TNPCB.

On December 31, 2016, HUL received permission from TNPCB to commence preparatory work and trials for soil remediation at former factory site in Kodaikanal.

On August 16, 2017, HUL commenced soil remediation on a trial basis at its former factory site in Kodaikanal. The trial was conducted for a period of three months and was successfully completed in November 2017 in accordance with the Detailed Project Report and as per the approval given by TNPCB.

In February 2018, HUL submitted the final soil remediation plan for remediating the soil inside the factory premises to the TNPCB. The company is engaging with TNPCB on next steps.

On June 11, 2018, Hindustan Unilever Limited (HUL) received permission from Tamil Nadu Pollution Control Board (TNPCB) to commence full scale soil remediation to the remedial standard of 20mg/kg at its former factory site in Kodaikanal.

Following this, some of the activists approached the National Green Tribunal (NGT) contesting the soil remediation standard of 20 mg/kg. The NGT has directed the Central Pollution Control Board (CPCB) to obtain an expert opinion on whether the Site-Specific Target Level of 20 mg/kg is the right remediation standard. In the interim, the NGT asked HUL to wait for its order to begin remediation of soil inside the factory premises.

On November 1, 2018, the Principal bench of the NGT, Delhi cleared the way for soil remediation at HUL's former factory in Kodaikanal. The NGT has reaffirmed the soil remediation standard of 20 mg/kg.

HUL is committed to cleaning up the site.

The text below clarifies the steps we have taken to reach this stage.

Mercury contamination at our former thermometer factory, Kodaikanal, India

BACKGROUND

The mercury thermometer factory was set up in Kodaikanal, Tamil Nadu State, in southern India in 1983. In 1987, Pond's India came into the Unilever fold through the larger corporate acquisition of acquisition of Chesebrough-Pond's. Pond's India, and with it the thermometer factory, merged with Hindustan Limited¹ in 1998.

Thermometers were a product line that was not core to Unilever but they were a source of export earnings to which the Indian government attached high importance. Given Unilever's strategic decision to exit non-core product activities, the factory's long-term future within the company was under review some time before the events described below. A decision to exit the thermometer business had already been made in January 2001.

MARCH 2001

Activities at the Kodaikanal site became a focus for attention in March 2001 when Greenpeace and others brought to Hindustan Unilever's attention the fact that glass scrap with residual mercury had been sold to a scrap dealer about three kilometres away from the factory. HUL immediately closed the factory and launched an investigation.

HUL notified the relevant statutory body, the Tamil Nadu Pollution Control Board (TNPCB). HUL also engaged URS Dames and Moore as independent international environmental consultants to make an environmental assessment and risk assessment of the site.

Our investigation revealed that 5.3 metric tonnes of mercury-tainted glass scrap (containing approx. 0.15% residual mercury) had been sold in breach of our established procedures.

The investigation showed that the manufacturing process was safe and had been audited as such both internally by HUL and by the Tamil Nadu State authorities. There were strict processes in place for recycling glass scrap with residual mercury. It was these procedures that had been breached and glass scrap with residual mercury had gone to recyclers, who should only have had pure glass scrap.

The Final Report from URS on the assessment for mercury at the site concluded that the Kodai lake had not been impacted by mercury; the people who had worked at the site had not suffered adverse health effects due to the factory operations; and remediation of soil was needed at the site.

JUNE 2001

HUL removed 7.4 tonnes of glass scrap with residual mercury and the soil beneath the scrap from the scrap yard to its factory premises for safe storage. HUL also took

action to track down any glass scrap which had left the site over the previous ten years and offered to recover any scrap from recyclers for safe storage on the Kodaikanal site.

AUGUST 2001

Five silt traps were constructed to prevent discharge of soil from the factory site to the Pambar valley, the only direction into which the water flows out of the site. This task was completed in time for the 2001

monsoon season.

JUNE 2002

HUL sought permission as early as 28 June 2002 for the clean-up or remediation of the land within the premises of the factory to a high, residential standard known as the 'Dutch standard' (10 mg/kg).

MARCH–MAY 2003

Hindustan Unilever negotiated with the Indian and US governments for permits to pack and transport the mercury-containing material to the US for recycling. The consignment consisted of 290 tonnes of materials and included glass scrap with residual mercury, semi-finished and finished thermometers, effluent treatment plant waste and elemental mercury. They were packed under the supervision of TNPCB officials and witnessed by local NGOs, including Greenpeace. The materials reached New York on May 31, 2003 and were then transported to Bethlehem Apparatus Inc. for recovery of mercury and its subsequent recycling/disposal.

2004–2005

HUL continued to pursue with the TNPCB permissions to remediate the soil and also to de-contaminate and scrap the thermometer-making equipment at the Kodaikanal site.

On the advice of the TNPCB, HUL engaged with technical experts from the Government of India's National Environment Engineering Research Institute (NEERI) and finalised the scope and timing of the NEERI study and their involvement in the physical decontamination of the equipment at the site and the soil remediation.

MAY 2005

The NEERI proposal was approved by the TNPCB.

FEBRUARY–MAY 2006

The plant and machinery and materials used in thermometer manufacturing at the site were decontaminated and disposed of as scrap to industrial recyclers.

The protocol for decontamination was prepared by URS, modified by Professor Shyam R Asolekar of IIT Mumbai, verified by NEERI and approved by the TNPCB

and the Scientific Experts Committee constituted by the Supreme Court Monitoring Committee to monitor the remediation measures.

OCTOBER 2007

For the remediation of the contaminated soil on site, NEERI conducted pilot plant trials at the factory and its results were considered by NEERI while it recommended a soil remediation protocol. NEERI recommended soil washing and thermal retorting technologies in this protocol.

NEERI presented the protocol to the TNPCB and the Scientific Experts Committee and the protocol was accepted. Based on the recommendation of the Scientific Experts Committee, the TNPCB set soil remediation criteria and asked NEERI to prepare a Detailed Project Report for undertaking soil remediation.

NEERI submitted the DPR to TNPCB and sought permission to commence the remediation work.

NOVEMBER 2007

The Scientific Experts Committee and TNPCB considered the DPR. They granted in principle approval for the remediation, asking Hindustan Unilever to incorporate some suggestions and submit a revised DPR.

MAY 2008

The Scientific Experts Committee and TNPCB visited the factory site, inspected the pilot plant, reviewed the revised DPR and cleared the DPR.

JULY 2008

TNPCB granted permission for remediation to commence and set the remediation criteria of 20 mg/kg of mercury concentration in soil.

The Tamil Nadu Pollution Control Board (TNPCB) is the statutory authority in the state of Tamil Nadu, India to set soil remediation criteria.

It should be noted that India does not have any accepted numerical standards for either assessing soil contamination or for determining remediation criteria. The Supreme Court Monitoring Committee directed NEERI to develop the remediation criteria for the site, based on a Risk Assessment Study. Remediation standards or clean-up criteria will vary from site to site depending on soil conditions, future land use, the need for the preservation of local ecology and potential risks.

It is also pertinent to note that screening criteria such as the British and Dutch Intervention Values do not necessarily mean that these would be applicable as the soil clean-up standard or remediation criteria. The Dutch Intervention Value for mercury was originally 10 mg/kg in 2001. Based on new scientific data and models generated by the Dutch authorities, the Intervention Value was revised upwards to 36 mg/kg in 2006.

MAY 2009

Pre-remediation work started in May 2009 according to the approved Detailed Project Report.

2010

Some NGOs contested the soil clean-up criteria set by the TNPCB. Remediation criteria based on a site-specific Risk Assessment Study is the internationally recognised procedure for remediation. As desired by the TNPCB and the Scientific Experts Committee during the project review meeting in January 2010, additional studies were undertaken by national institutions.

IIT Delhi revalidated the Risk Assessment Study and site-specific clean-up standard; National Botanical Research Institute, Lucknow, studied the impact on trees and preservation of trees; and the Centre for Soil and Water Conservation Research and Training Institute, Ooty, studied the impact on soil and soil erosion.

2011–2014

The findings of these additional studies, conducted by IIT Delhi, National Botanical Research Institute and the Centre for Soil and Water Conservation Research and Training Institute, were submitted to TNPCB and the Scientific Experts Committee (SEC) in February 2011. The IIT Delhi study recommended the site-specific clean-up standard of 22.4 mg/kg for soil remediation. During this period, TNPCB and SEC met five times including two site visits to the factory.

Subsequent to the findings of the above three studies, the Scientific Experts Committee, in May 2013, reconfirmed 20 mg/kg as the clean-up standard for soil remediation in the factory. Further to this, in February 2014, TNPCB has asked the Central Pollution Control Board (CPCB) of the Central Government of India to advise on the clean-up standard. In Dec 2014, the CPCB invited the NGOs for a meeting to understand their concerns on the remediation standard, but the NGOs did not participate.

2015

On August 10, 2015, HUL submitted a Detailed Project Report for soil remediation to TNPCB. HUL will commence the preparatory work immediately and will start the soil remediation process once the procedural formalities are completed. The DPR has been prepared based on the soil remediation standard, as recommended by Scientific Experts Committee (constituted by the Supreme Court Monitoring Committee) and as agreed by the Central Pollution Control Board (CPCB).

2016

On December 31, 2016, HUL received permission from TNPCB to commence preparatory work and trials for soil remediation at former factory site in Kodaikanal. HUL is committed to cleaning up the site.

2017

HUL commenced soil remediation on a trial basis at its former factory site in Kodaikanal on August 16, 2017. The trial was conducted for a period of three months and was successfully completed in November 2017 in accordance with the Detailed Project Report and as per the approval given by TNPCB. To read more about this, please [click here](#).

2018

Hindustan Unilever Limited (HUL) submitted the final soil remediation plan for remediating the soil inside the factory premises to TNPCB.

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Following this, some of the activists approached the National Green Tribunal (NGT) contesting the soil remediation standard of 20 mg/kg. The NGT has directed the Central Pollution Control Board (CPCB) to obtain an expert opinion on whether the Site-Specific Target Level of 20 mg/kg is the right remediation standard. In the interim, the NGT asked HUL to wait for its order to begin remediation of soil inside the factory premises.

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Assessing the health of our workers

Comprehensive occupational health and safety systems existed at the Kodaikanal factory prior to its closure in 2001. Internal monitoring within the factory and external audits carried out by statutory authorities during the operation of the factory showed that there were no adverse health effects to the workers on account of their employment at the factory.

In addition, many expert studies carried out after the closure all concluded that there had been no adverse health impacts on ex-employees due to the nature of their work in the factory. These studies included:

A comprehensive medical examination conducted by a panel of doctors using a questionnaire developed by the US Department of Labor, Mines, Safety and Health Administration

- Studies by the Certifying Surgeon from the Inspectorate of Factories, by Dr P N Viswanathan of Industrial Toxicology Research Centre (ITRC); by Dr Tom van Teunenbroek of TNO as directed by the State Pollution Control Board TNPCB; and by the Industrial Toxicology Research Centre (ITRC) as directed by the Supreme Court Monitoring Committee.
- The conclusions from our own occupational health surveillance have also been independently endorsed by the All India Institute of Medical Sciences (AIIMS) and the National Institute of Occupational Health (NIOH).

In February 2006, some of the ex-employees of the Kodaikanal factory approached the Madras High Court seeking directions for conducting a fresh health survey and providing economic rehabilitation.

In June 2007 the Honourable Madras High Court constituted a five-member expert committee (including representatives from ITRC, AIIMS and NIOH) to decide whether the alleged health conditions of the workers and their families were related to mercury exposure. The committee was also asked to decide whether a new health study was needed.

The expert committee obtained inputs from the petitioners and from Hindustan Unilever Limited (HUL) and, during a visit to the factory in October 2007 to understand its safety systems and procedures, also examined some ex-workers and family members of ex-workers.

The expert committee submitted its report in December 2007. Its conclusion was that "The committee failed to find sufficient evidence to link the current clinical condition of the factory workers to the mercury exposure in the factory in the past". The Madras High Court appointed expert committee ruled out the need for any fresh health study.

The Ministry of Labour & Employment (the Ministry) is also a respondent in the matter filed by the ex-workers of the Kodaikanal factory in the Madras High Court. After almost four years of the earlier report being put on Court record and without any objections to the report, the Ministry submitted a report at the end of 2011 to the Honourable Madras High Court.

HUL filed its objections to the Ministry's report in January 2012. Hearings were held subsequently with the last one taking place in February 2013. At this last hearing, the presiding judge excused himself and directed the matter to be listed before the Chief Justice of the Madras High Court. The matter has not yet been placed before the Chief Justice and as such it remains sub judice.

HUL signed a settlement on humanitarian grounds with former workers on March 4, 2016. The Hon'ble High Court of Madras took the settlement agreement on record. As part of the agreement, HUL, with an objective to ensure long term wellbeing of its former workers, has agreed to provide ex gratia payments to 591 former workers/association members and their families to be used towards livelihood enhancement projects and skill enhancement programs.

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¹ Hindustan Unilever Limited (HUL) was formally known as Hindustan Lever Limited (HLL)