



Environment



Performance

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**INEOS Chlor**

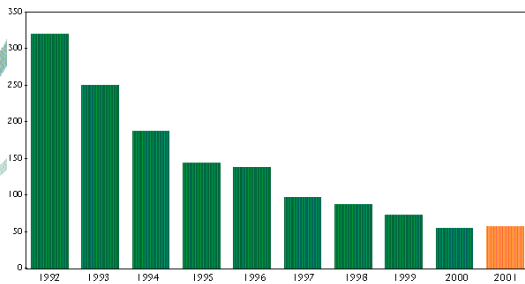
# Towards Zero Injuries at Work

## Minor Injuries

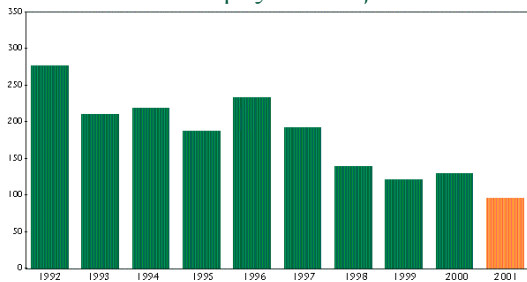
As progress towards achieving its objective of zero injuries at work, INEOS Chlor requires its employees and all who work under its control to follow a set of behavioural standards encompassed within the "SHE Standards for Manufacturing", designed to foster a culture to achieve that aim.

Progress in 2001:

Employee All Injuries



Non-Employee All Injuries

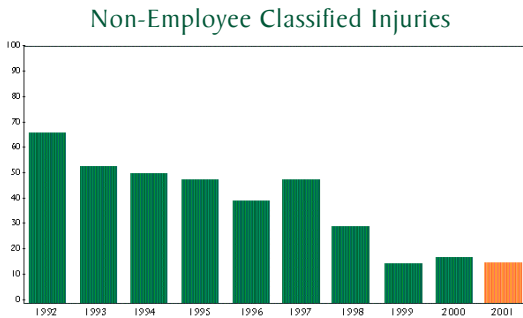
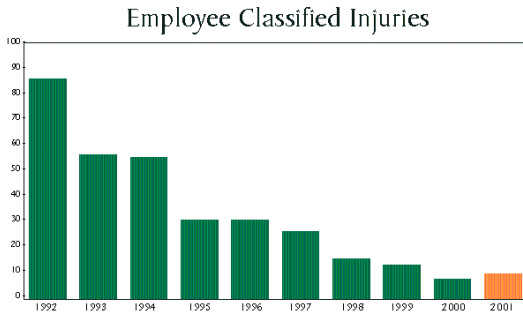


The total numbers of injuries in 2001 was less than in 2000, a very pleasing achievement. This category includes all cases of first aid treatment, however minor, so we can learn how to prevent more serious injuries.

## Classified Injuries

As progress towards achieving its objective of zero injuries at work, INEOS Chlor will have as a target each year, both for its employees and those who work under its control, the number of injuries which require more than first-aid treatment to be at least one less than its best year, starting from a target for 2001 of 9.

Progress in 2001:



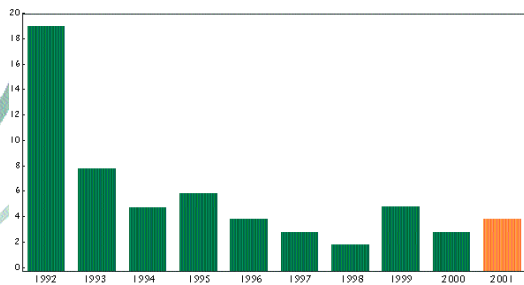
Although the number of these more serious injuries increased over the exceptional performance of 2000 the trend continues to move in the right direction. Employee injuries were one more than target.

## Reportable Injuries

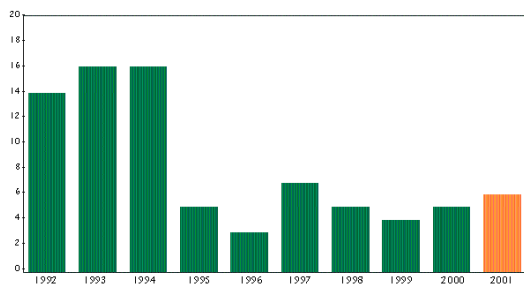
The target for INEOS Chlor is that there should be no injury at work to its employees or to those working under its control of such a serious nature that it must be reported to the statutory authorities.

Progress in 2001:

### Employee Reportable Injuries



### Non-Employee Reportable Injuries



The increase, particularly in Non-Employees Reportable Injuries, is disappointing, but it must be remembered that these numbers are extremely low and subject to statistical variation.

# Towards Zero Work -Related Ill Health

## Physical Agents

INEOS Chlor will put in place the necessary procedures and take the necessary actions to ensure that there are no further cases of work-related ill health due to exposure to excessive noise, vibration or radiation arising from its activities.

Progress in 2001:

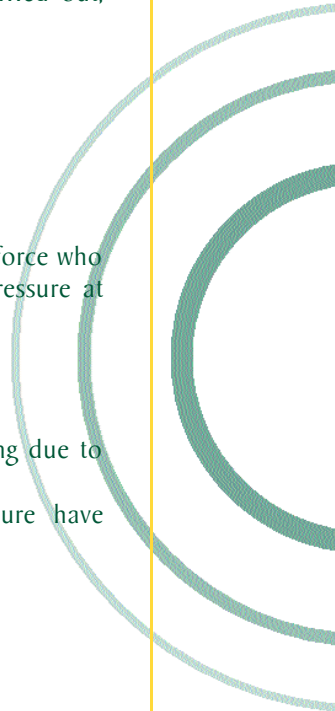
- No new cases of noise induced hearing loss or ill-health due to other physical hazards have been identified.
- SHE instruction on noise exposure at work rewritten to clarify the measures that are to be taken to prevent exposure to unacceptable noise levels
- Training received in vibration assessments, equipment purchased to enable vibration assessments to be carried out, and monitoring started.

## Stress

INEOS Chlor will work to reduce the number of its workforce who suffer from the ill health effects caused by excessive pressure at work.

Progress in 2001:

- Those health effects that have been identified as being due to excessive pressures are less severe.
- Better recognition of the signs of excessive pressure have resulted in earlier detection of ill health.

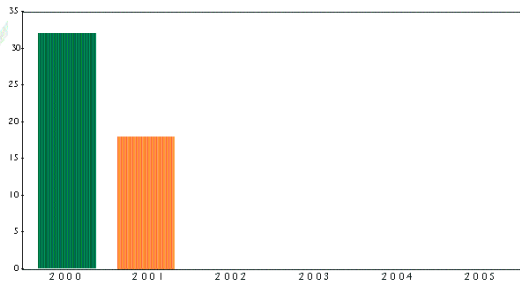


## Exposure to Chemicals

INEOS Chlor will monitor the potential exposure of those who work on its sites to hazardous substances, fully investigate any recorded over-exposure, and take steps as are necessary to drive such occurrences towards zero.

Progress in 2001:

Exceedances of Hygiene Standards



The number of times in a year when, following the agreed monitoring schedule, a result above the hygiene standard was measured and respiratory protective equipment (RPE) was not being used, has reduced in 2001 through informed awareness training and practices.

# Towards Environmental Sustainability

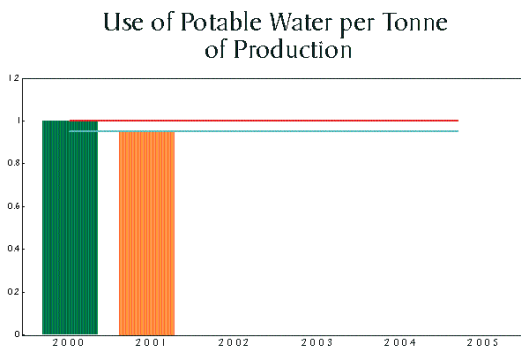
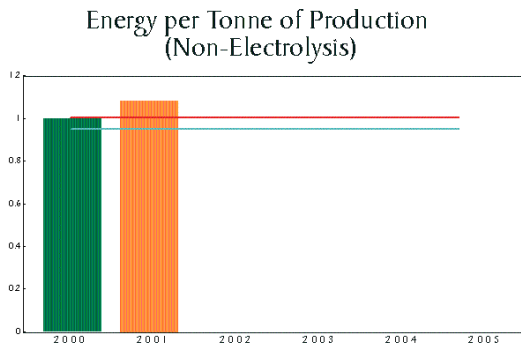
## Use of Resources

By 2005 INEOS Chlor will:

- reduce its energy consumption for non-electrolysis uses by 5%
- reduce its use of potable water for production purposes by 5%

per tonne of production based on a 2000 baseline.

Progress in 2001:



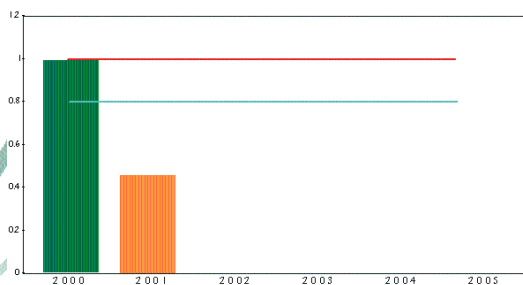
Although the use of energy for non-electrolysis purposes increased by a small amount in 2001, measures are in place to move towards the 2005 target.

## Reduction of Releases – Environmental Burden

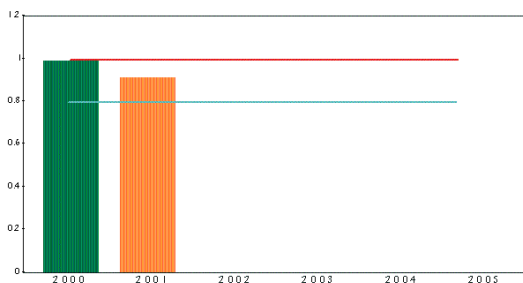
By 2005 INEOS Chlor will reduce by at least a further 20% its impact on environmental properties relating to atmosphere and water, based on a 2000 baseline.

Progress in 2001:

### VOCs with Potential for Harm

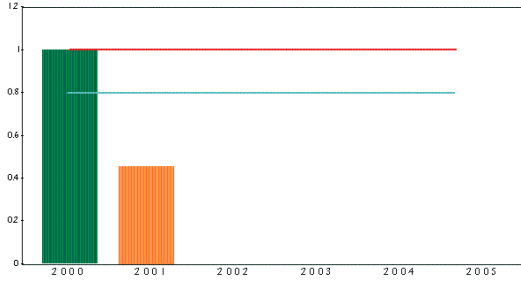


### Inorganic Substances with Potential for Harm

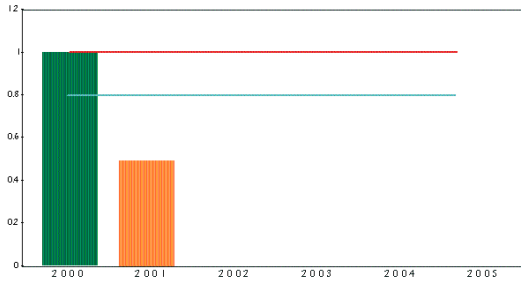


Substantial progress made in 2001 on reducing releases to air as major projects come on stream: connection of vents to EIP plant and refrigeration packages at Chloromethanes.

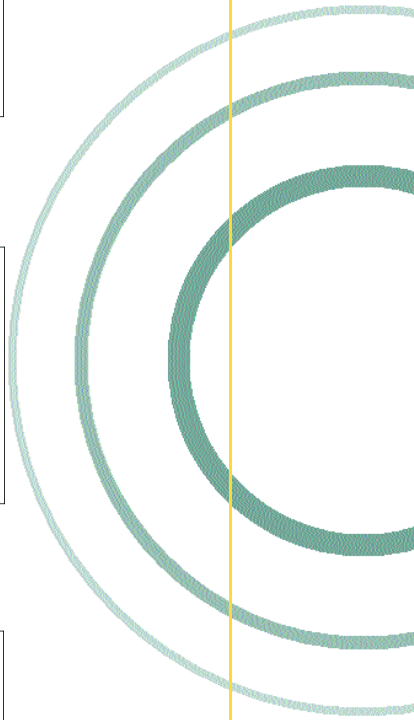
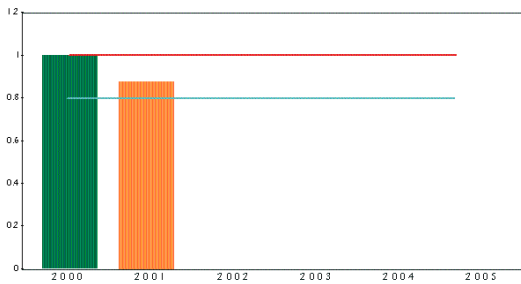
Ozone Creating Potential

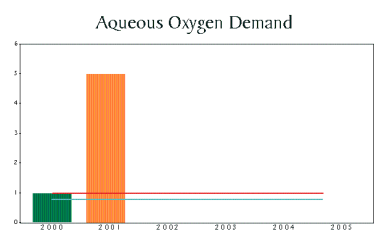
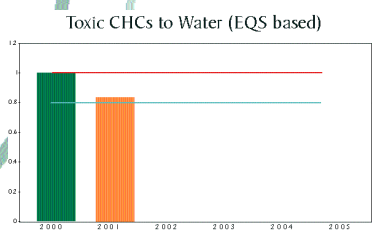
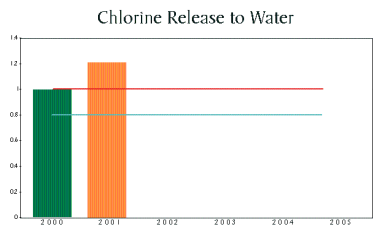
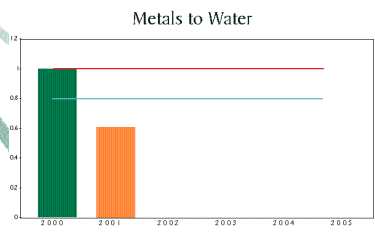
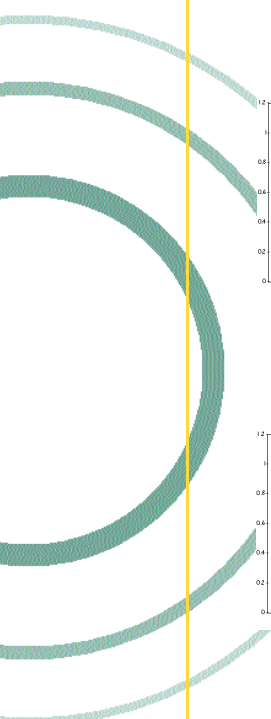


Ozone Depleting Potential



Greenhouse Warming Potential



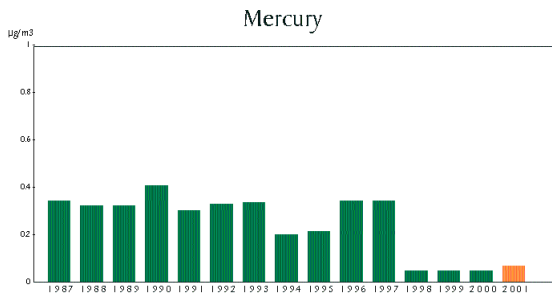
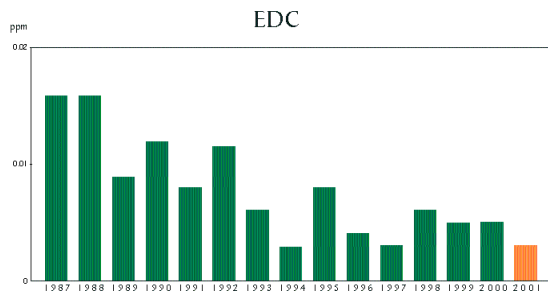
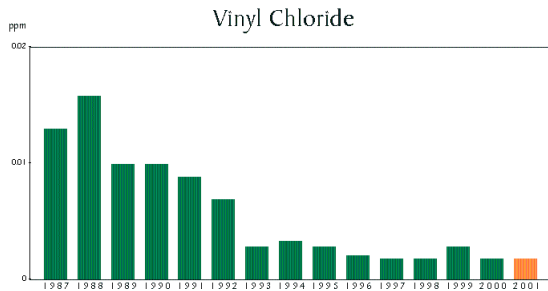


The reduction in the environmental burden of Metals to Water has been brought about by improvements to the water treatment plant at the cellrooms. A relatively minor release of methanol, although keeping within the permitted levels has a large effort on the aqueous oxygen demand.

## Reduction of Releases – Measurement

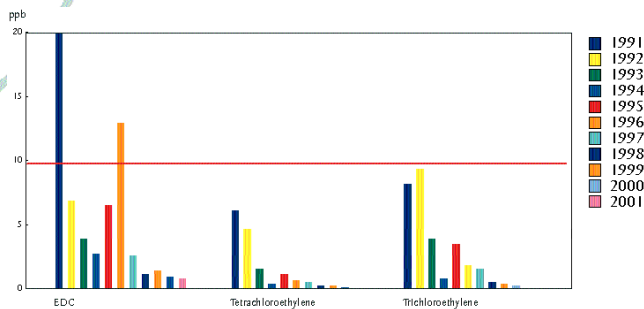
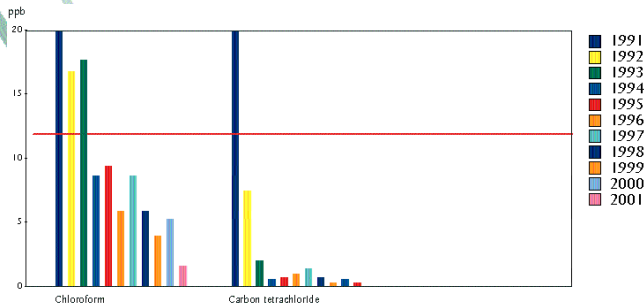
INEOS Chlor will continue to measure the effect that its operations may be having on the environment local to its sites.

Progress in 2001:



The concentrations in the air around the Runcorn Site of these key pollutants remains very low.

Environment Agency (EA) data for the concentrations of key pollutants at the Environmental Quality Standard (EQS) monitoring point at Sutton Weir.

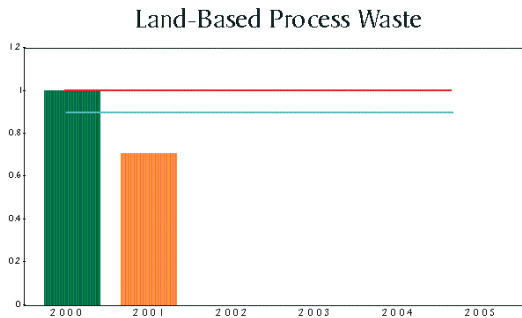


## Reduction of Releases – Waste Hierarchy

INEOS Chlor will manage its waste in such a way as to minimise its impact on the environment by:

- reducing the amount of waste for disposal by 10% by 2005, based on a 2000 baseline
- reusing or recycling waste materials where practicable
- when disposal is inevitable then, where practicable
  - treating the waste before it leaves our control
  - recovering energy from the waste
  - sending the waste to landfill as a last resort.

Progress in 2001:

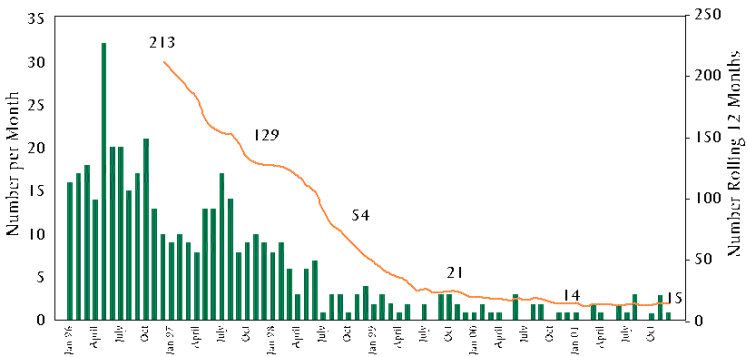


The amount of waste sent for disposal does vary considerably from year to year as construction projects on the site are carried out.

## Reduction of Releases – Towards Zero Incidents

As progress towards its objective of zero environmental incidents which either have a potential impact off-site or are a breach of our permits, INEOS Chlor will have an annual target of a reduction in the number of such incidents over the previous year, starting from a target for 2001 of 15.

Progress in 2001:



The number of incidents remains low, but unfortunately two chlorine releases in 2001 were of a more serious nature resulting in the external emergency procedures, "Cloudburst", being initiated as a precaution. No member of the public, or any of the people on site were harmed by the releases, which were quickly dealt with by the site emergency services.

## Protection of Habitats

INEOS Chlor will manage and conserve designated wildlife habitats which are located on its sites.

Progress in 2001:

INEOS Chlor has involved both Cheshire Wildlife Trust and the Halton BC wildlife experts in deciding the actions to be taken to restore the landslip at Clifton Clough.

## Environmental Accountability

INEOS Chlor will maintain accreditation of its EMS to the ISO 14001 standard.

INEOS Chlor will produce an annual report, available to all stakeholders, on progress towards the environmental targets.

Progress in 2001:

During 2001, the first area of the Runcorn Site was recommended for accreditation to ISO14001, joining Northwich operations, Bangpoo and Baleycourt.

This current presentation is the report of the 2001 performance.

