



Performance

2006

**INEOS Chlor**

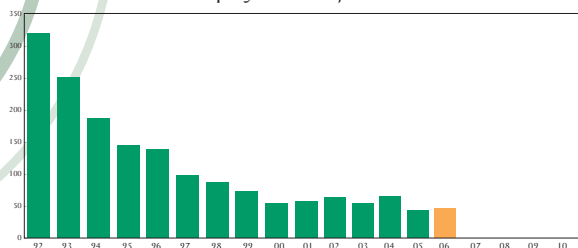
# Towards Zero Injuries at Work

## All Injuries

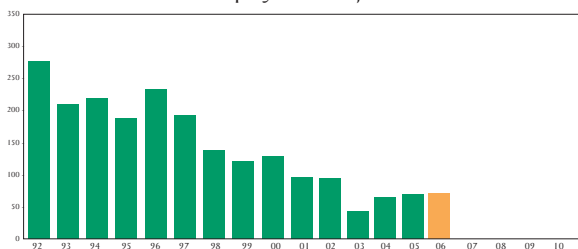
As progress towards achieving its objective of zero injuries at work, INEOS Chlor requires its employees and all who work under its control to follow a set of behavioural standards encompassed within the "SHE Standards for Manufacturing", designed to foster a culture to achieve that aim.

Progress in 2006:

Employee All Injuries



Non-Employee All Injuries



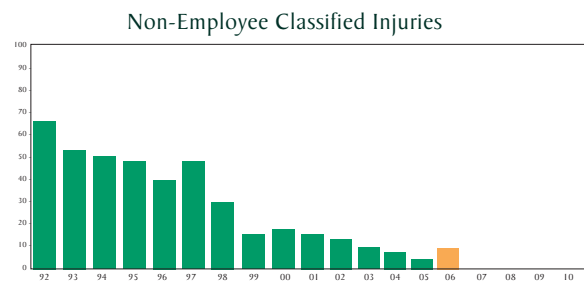
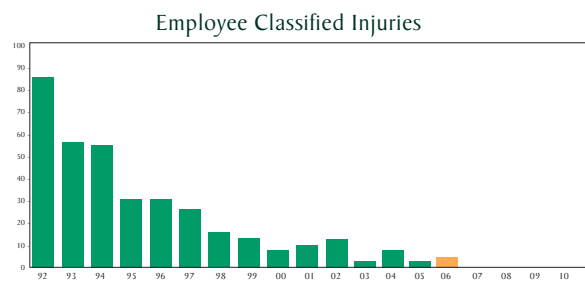
*In 2006, the total number of injuries sustained at Runcorn Site rose slightly on the previous year. Many of the injuries were similar to domestic injuries, slips, trips and falls - very few were chemically related. We continue to closely monitor injury performance and to identify lessons that can be learnt to prevent harm to those working at Runcorn Site.*

***Historic data includes contributions from the Sulphuric Acid Plant and Mid-Cheshire Operations (now part of INEOS Enterprises).***

## Classified Injuries

As progress towards achieving its objective of zero injuries at work, INEOS Chlor will have as a reducing target each year, both for its employees and those who work under its control, the number of injuries that require more than first-aid treatment.

Progress in 2006:



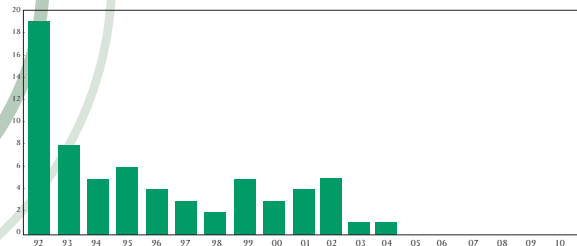
*In 2006, the number of classified injuries to both employees and contractors increased slightly after the previous record low year. The majority of these injuries were slips and trips whilst moving around and this will be an area for the Company to focus on going forward.*

## Reportable Injuries

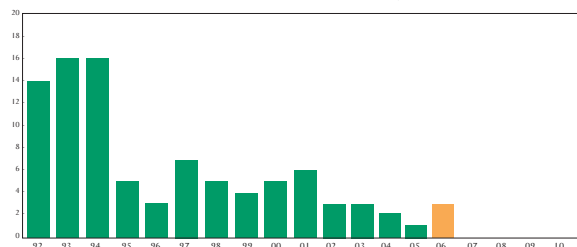
The target for INEOS Chlor is that there should be no injury at work to its employees or to those working under its control of such a serious nature that it must be reported to the statutory authorities.

Progress in 2006:

Employee Reportable Injuries



Non-Employee Reportable Injuries



*We continue to be one of the best in class performers for Reportable Injuries, although there was a slight increase in 2006. None of the reportable injuries in 2006 were chemically related and were caused as a result of moving around. We will be carrying out specific initiatives to address this.*

# Towards Zero Work-Related Ill Health

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## 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 2006:

- *rolling 3-year programme of noise surveys continued. No new cases of noise induced hearing loss in 2006 attributable to INEOS Chlor.*
- *no recorded cases of exposure to ionising radiation above the internal INEOS Chlor standard (set at 1/20 the HSE dose limit)*
- *continuing programme of hand and arm vibration measurements.*

## Occupational Health

INEOS Chlor will work to reduce the number of its workforce who suffer from work related ill health effects.

Progress in 2006:

- *the continued improvement in managing the health of INEOS Chlor employees has been maintained. This is demonstrated in the low level of work related ill-health retirements and aided by the increased awareness of health issues by managers, Human Resources and Occupational Health and improved processes which are now in place.*

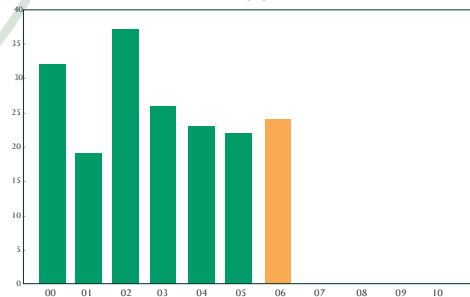


## Exposure to Chemicals

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 2006:

Exceedances of Hygiene Standard



*Number of times in a year when, following the agreed monitoring schedule, a result above the hygiene standard was measured and RPE was not being used.*

*INEOS Chlor carries out extensive personal monitoring amongst workers at Runcorn Site and achieved a compliance for more than 99% across 2650 samples taken in the year.*

# Towards Environmental Sustainability

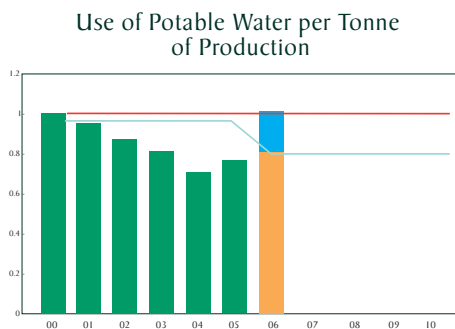
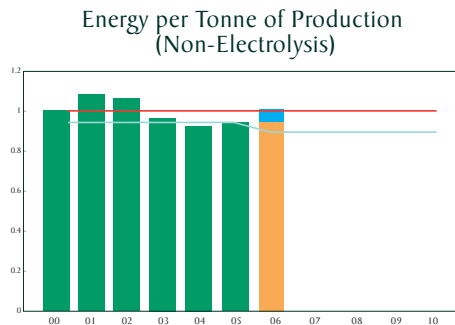
## Use of Resources

By 2010 INEOS Chlor will:

- reduce its energy consumption for non-electrolysis uses by 14%
- reduce its use of potable water for production purposes by 20%

per tonne of production based on a 2000 baseline.

Progress in 2006:



■ Effect of commissioning new cellroom & boiler plant

Energy is an important resource at Runcorn Site and we continue to improve the efficiency of energy usage across the site. However, in 2006 there was an increase in energy consumption as a result of commissioning of the new Membrane Chlorine Plant.

Similarly the potable water usage in 2006 increased, predominantly due to necessary commissioning activities on the new Membrane Chlorine Plant and new Boiler Plant.

We would expect both energy and potable water consumption to resume the downward trend in coming years.

**Historic data includes contributions from the Sulphuric Acid Plant (now part of INEOS Enterprises).**

Data for Runcorn

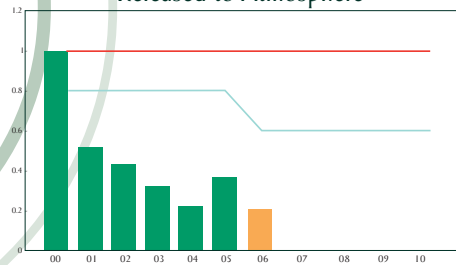
Data for Runcorn

## Reduction of Releases – Environmental Burden

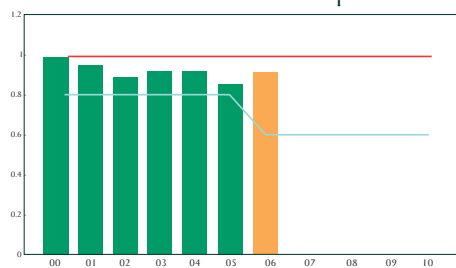
By 2010 INEOS Chlor will reduce by at least a further 40% its impact on environmental properties relating to atmosphere and water, based on a 2000 baseline.

Progress in 2006:

VOCs with Potential for Harm Released to Atmosphere

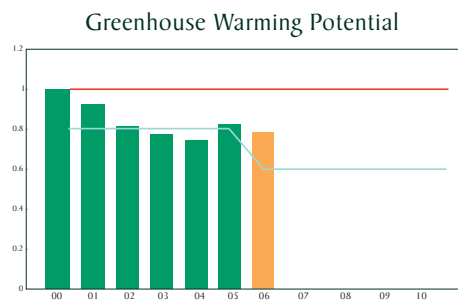
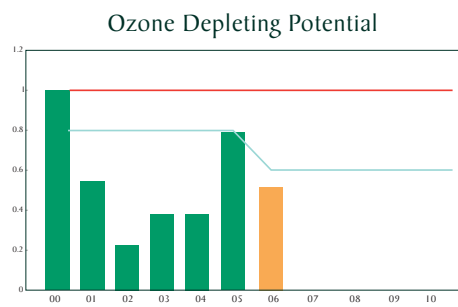
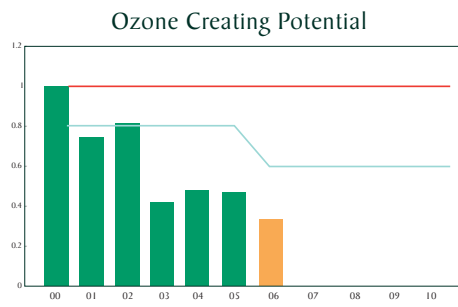


Inorganic Substances with Potential for Harm Released to Atmosphere

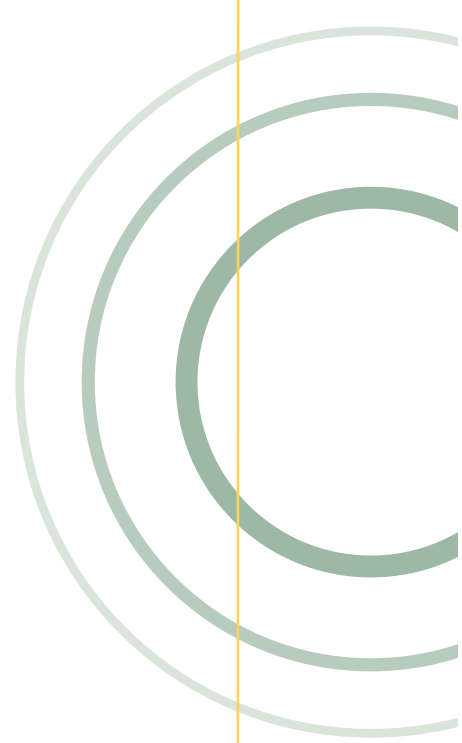


*In 2006, a considerable reduction in VOCs was achieved due to high EIP availability and improved vent treatment.*

*However, there was a small increase for inorganic substances due to the delayed closure of one of the mercury cellroom units.*



*Greenhouse Warming Potential is equivalent to the production carbon footprint. The 2006 result was elevated by the commissioning of the new Membrane Chlorine Plant.*





*The impact of INEOS Chlor operations on the environmental burden for water is relatively small.*

*During 2006 there were dramatic reductions in almost all areas due to the tighter control and management of releases through outfalls.*

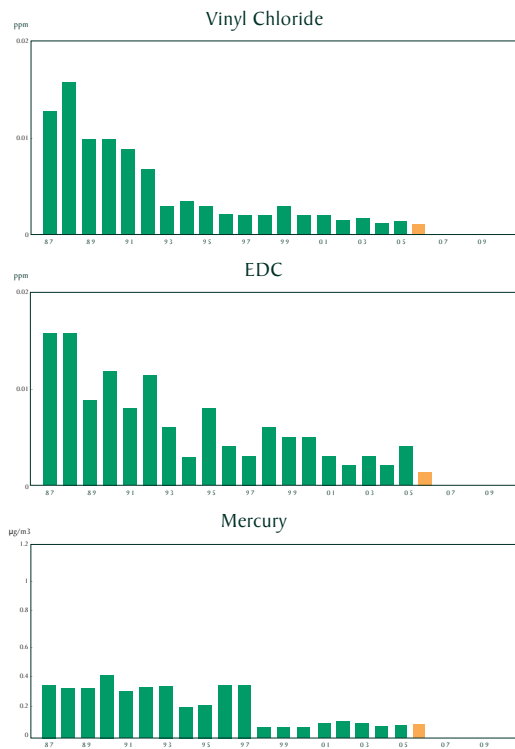
*We continue to identify ways of reducing this even further.*

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## 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 2006:

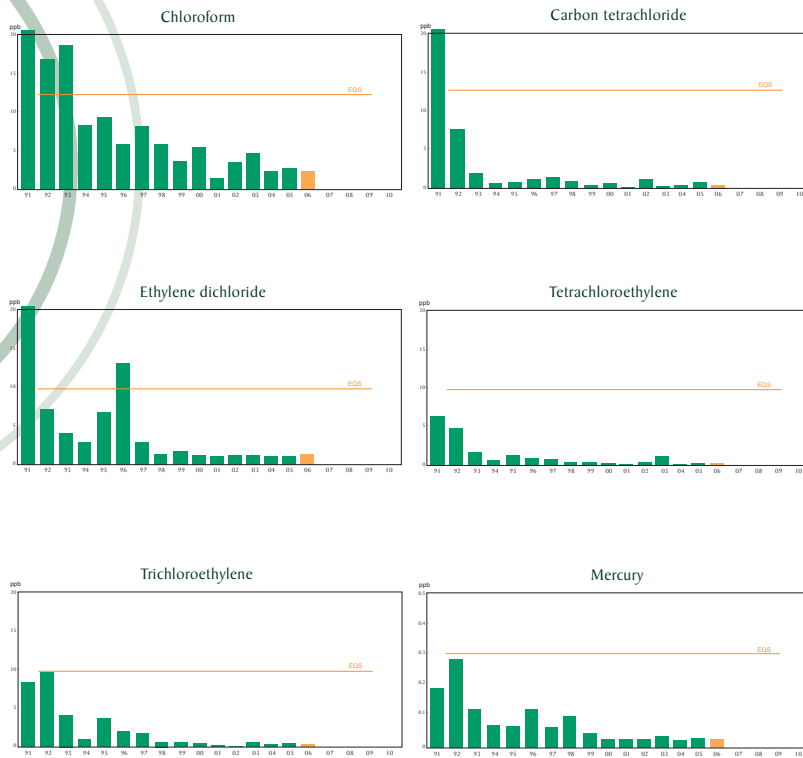


*We continue to measure the concentrations of possible pollutants from Runcorn Site in the local environment.*

*The concentrations of pollutants found in the air close to the Site are at such low levels that they often cannot be measured with the sophisticated monitoring technique that we use.*

*The VOC results above show that the atmospheric concentrations outside the site are less than one thousandth of the level set by the HSE for the people who work on the site.*

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



*The downward trend continues. Around one third of the results are now below the limit of detection.*

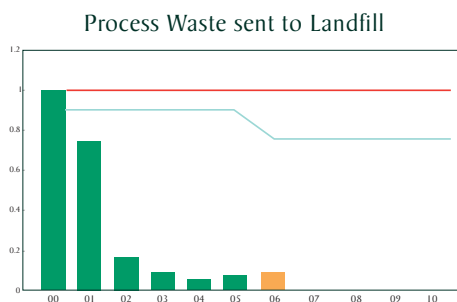
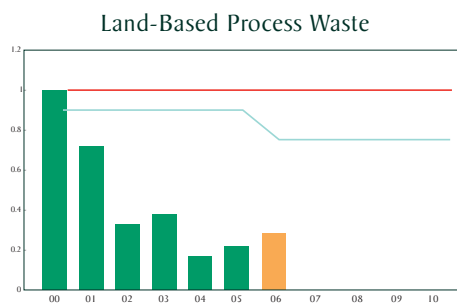
## Reduction of Releases – Waste Hierarchy

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

- 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

### Target

- to reduce the amount of waste for disposal by 25% by 2010, based on a 2000 baseline.



*Reduction in waste and improvements in the management of waste are key targets for INEOS Chlor in its drive towards environmental sustainability.*

*The increase in waste in 2006 can be linked to the commissioning of the Membrane Chlorine Plant.*

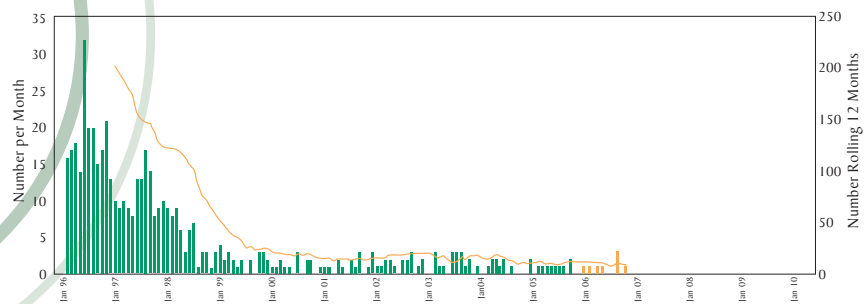
Data for Runcorn

Data for Runcorn

## Reduction of Releases – Towards Zero Incidents

As progress towards its objective of zero environmental incidents that either have a potential impact off-site or are a breach of our permits, INEOS Chlor will have an annual reducing target.

Progress in 2006:



*In 2006, there were a total of 8 reportable incidents, a reduction on the previous year. All but one of the incidents were associated with minor breaches of consent on the outfalls at Runcorn - there were no complaints from members of the public that relate to these incidents.*

*Analysis of the outfall excursions using the Environment Agency's own criteria would regard all but 2 as trivial.*

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## Protection of Habitats

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

Progress in 2006:

*INEOS Chlor continues to work with Halton BC to protect ancient woodland at Clifton Clough.*

*INEOS Chlor is continuing to support the work of local environmental organisations including: Cheshire Wildlife Trust, Weaver Valley, Mersey Forest, Groundwork.*

## 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 2006:

*Accreditation to the new ISO 14001:2004 standard was consolidated for the complete business at the Runcorn Site.*





**INEOS Chlor**  
[www.ineoschlor.com](http://www.ineoschlor.com)