



Environmental Report

R u n c o r n 2 0 0 7

**INEOS ChlorVinyls**

# Towards Environmental Sustainability

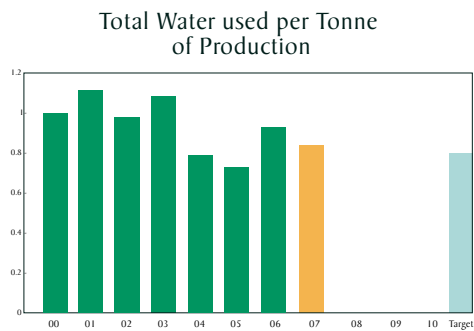
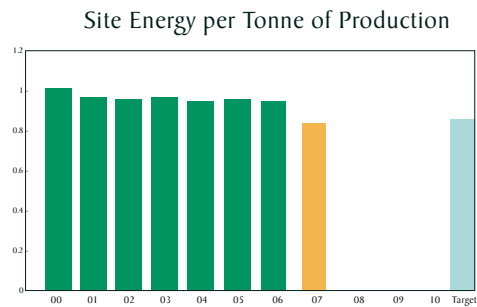
## Use of Resources

By 2010 INEOS ChlorVinyls will:

- reduce its energy consumption by 14%
- reduce its use of water for production purposes by 20%

per tonne of production based on a 2000 baseline.

Progress in 2007:



*Energy is an important resource for the Runcorn Site. In 2007 the impact of the new Membrane Chlorine Plant can be seen. This replaced part of the less efficient Mercury Cellroom capacity.*

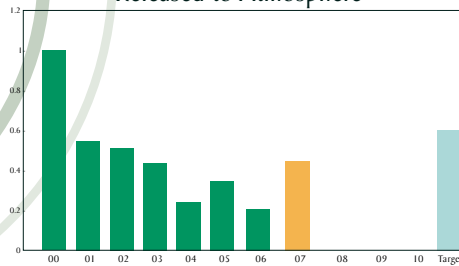
*Water usage resumed its downward trend following the commissioning of the new Boiler Plant.*

## Reduction of Releases – Environmental Burden

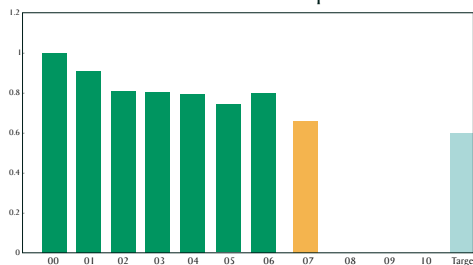
By 2010 INEOS ChlorVinyls will reduce its impact on environmental properties relating to atmosphere and water, based on a 2000 baseline in line with the CIA Sustainability Programme targets.

Progress in 2007:

VOCs with Potential for Harm Released to Atmosphere

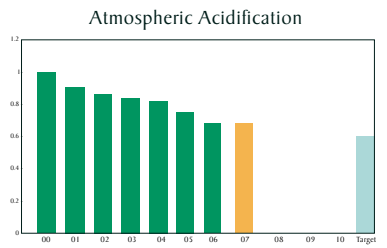
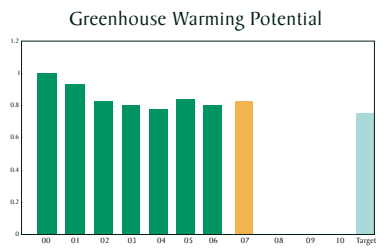
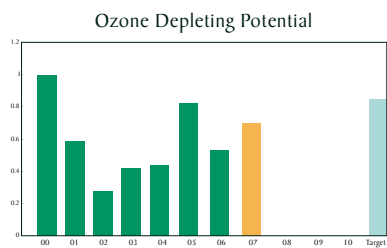
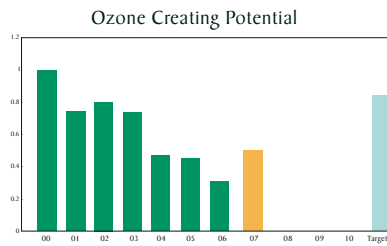


Inorganic Substances with Potential for Harm Released to Atmosphere



*2007 saw the biannual shutdown of the main abatement plant for statutory maintenance. This gave rise to an increase in Site emissions, but these were still well within the levels set by the Regulator.*

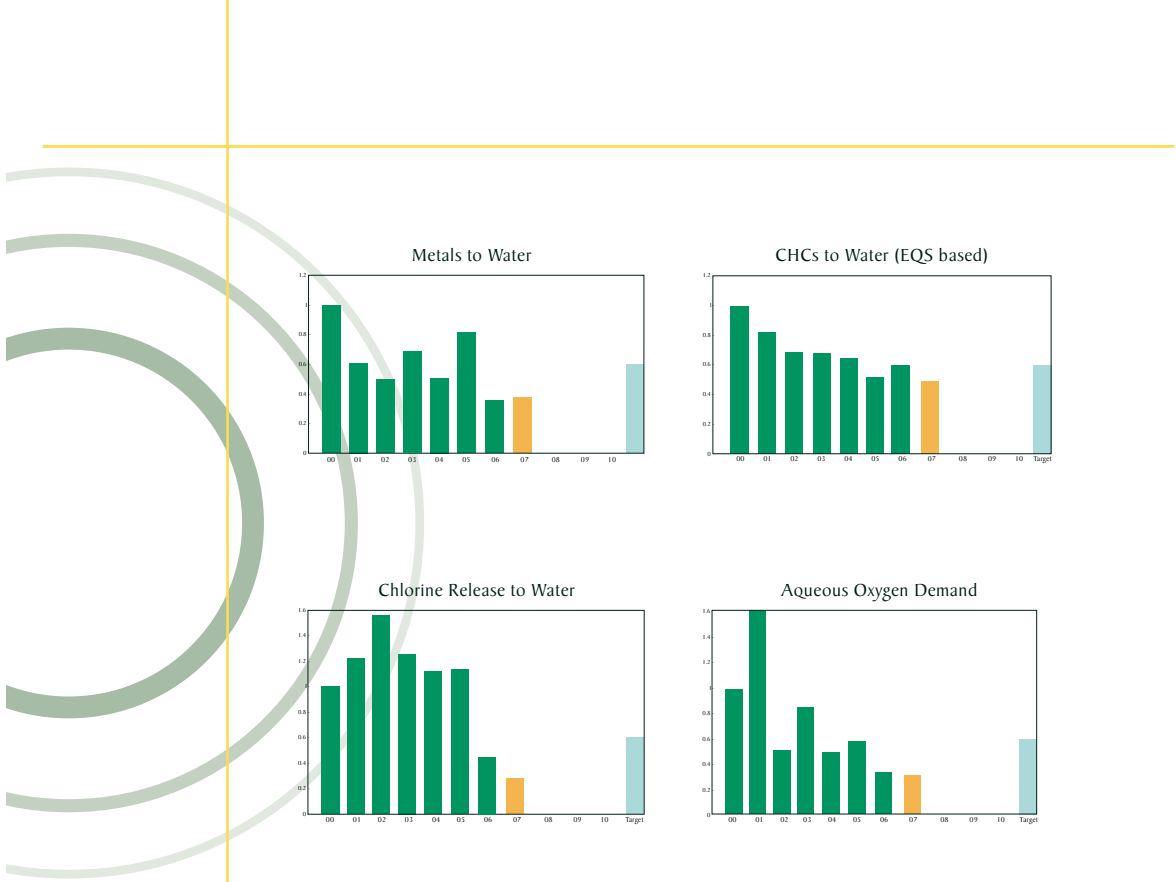
*The closure of one of the Mercury Cellroom units reduced the inorganic releases. In addition, the new Boiler Plant emits less inorganic oxides than its predecessor.*



*Greenhouse Warming Potential is an equivalent measure to carbon footprint. An inability to burn by-product hydrogen in the new Boiler Plant required more natural gas to be consumed.*

*Atmospheric Acidification is a measure of acid rain potential. The new Boiler Plant is designed to give lower emissions of those gases that can form acid rain.*



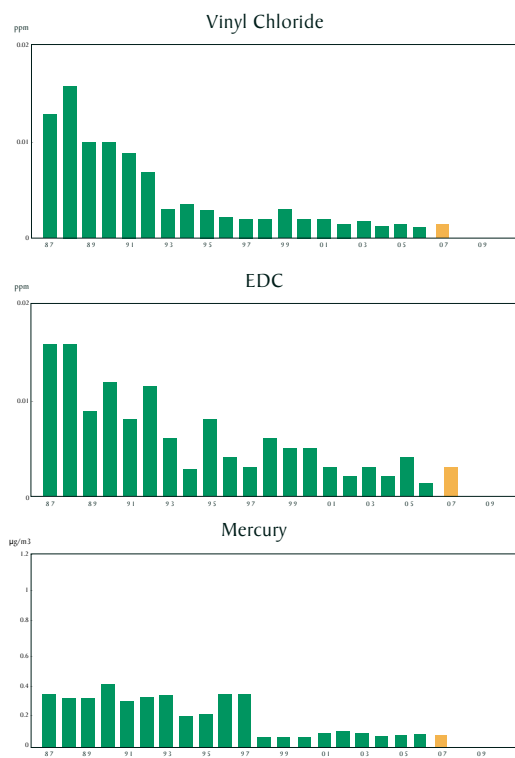


*The impact of the Site operations on the receiving water is relatively small. Exit concentrations of metals and chlorinated hydrocarbons are all sub parts per million/all in the parts per billion range.*

## Reduction of Releases – Measurement

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

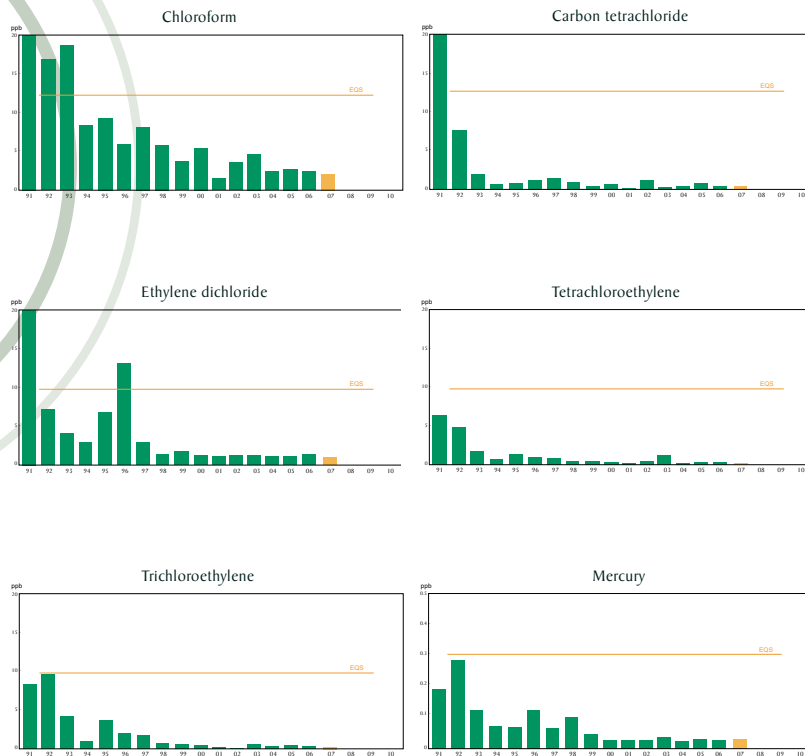
Progress in 2007:



*The concentrations of pollutants found in the air near to the Site are normally too low to be measured/detected even by the sophisticated monitoring equipment used.*

*Fluctuations follow the availability of the main abatement plant but remain less than one thousandth of the level set by the HSE for employees who work on the Site.*

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



*The concentrations of key pollutants are typically less than one tenth of the EQS. Around one half of the results are below the limit of detection.*

## Reduction of Releases – Waste Hierarchy

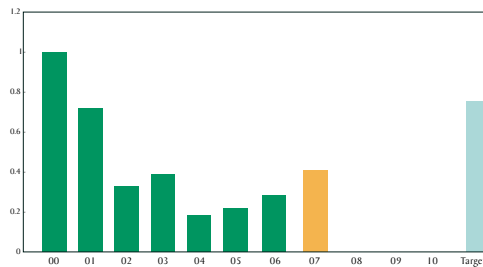
INEOS ChlorVinyls will manage its waste in such a way as to minimise its impact on the environment by:

- 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

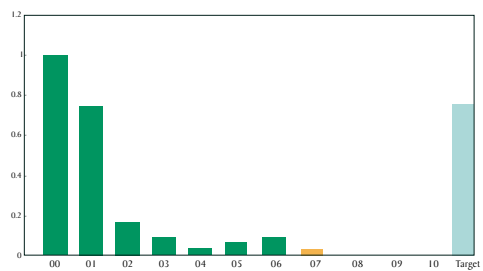
### Target

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

Land-Based Process Waste



Process Waste sent to Landfill



Data for Chlor only

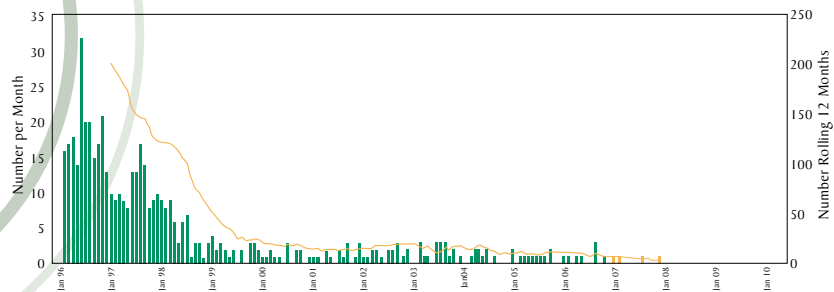
*Waste generation continues to be affected by the legacy of recent major projects on Site, as plants adjust to the new infrastructure.*

*Waste sent to landfill continues to be at a very low level.*

## 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 ChlorVinyls will have an annual reducing target.

Progress in 2007:



*In 2007 there were only three Reportable Incidents in ChlorVinyls at Runcorn, the best year ever. One of these involved the off-site release of PVC powder that, although benign in nature, caused concern among the local community.*

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## Protection of Habitats

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

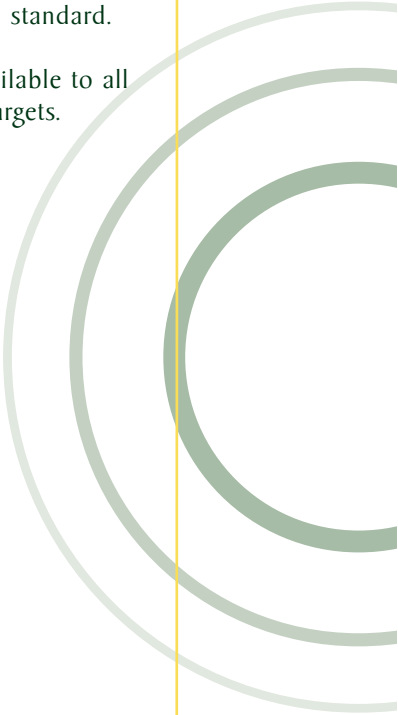
Progress in 2007:

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

## Environmental Accountability

INEOS Chlor & INEOS Vinyls will maintain accreditation of their Environmental Management Systems to the ISO 14001 standard.

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





**INEOS ChlorVinyls**  
[www.ineoschlorvinyls.com](http://www.ineoschlorvinyls.com)