

CHEMICAL RECOVERIES

Winter News 2006/7

Thermal Oxidiser to destroy VOC's from Solvent and Fuel Oil recovery plant

In late December 2006 we began the commissioning phase for the regenerative thermal oxidiser at Avonmouth. The plant is capable of destroying up to 4000 m3 an hour of air contaminated with solvents, paints, petrols and other waste VOC's (volatile organic compounds) from our recovery and fuel blending plants.

The expected effect of the plant will be to reduce our VOC emissions by over 90% from over 30 tonnes per annum to less than 3 tonnes.

What is a Thermal Oxidiser?

A thermal oxidiser is an item of plant that removes pollutants from a waste gas stream by burning the pollutants in a controlled manner.



How are pollutants destroyed?

The treatment is simply a controlled form of burning (combustion). The polluted gaseous waste stream requiring treatment is fed into the process space (combustion chamber) of the plant. A powerful naked flame running on the supplementary fuel, in our case natural gas with an option to run on Biogas at a later date, which incinerates the pollutants in the gas stream. Burning or incineration involves the chemical process of oxidation.

The incineration of pollutants requires high temperatures in the presence of excess oxygen (air) to achieve complete oxidation. When hydrocarbon VOC pollutants are completely oxidised the only products formed are carbon dioxide and water. Other VOC's will be oxidised

to other less polluting compounds (predominantly CO2 and water)

How will we demonstrate compliance?

Our Oxidiser has been supplied by EIS Ltd and its process controlled to hold temperature above 760 C and further has temperature and LEL alarms to manage safe shutdown in the event of a problem.

As part of our open policy on our Environmental impact we are to publish all the data on the Oxidiser on our website to demonstrate compliance in meeting the standards under our IPPC Authorisation. This will include a facility to view live data and will be available early February 2007.

Customer Profile

In order to portray our wide range of services, we will profile a variety of our customers in our newsletters.

Unit 22 Modelmakers, London

Specialists in presentation models, having gained considerable experience of modelmaking for the building industry over the last 18 years.

Their comprehensive range of services include: presentation models for marketing, planning and competitions, simplified block models, exhibition installations, photomontages, and full-size mock-ups.

For over 15 years we have disposed of by recovery 25 litre cans of solvent used in their modeling work, collected from their central London office.



County Hall redevelopment, London 1997
(Scale - 1:100) BUJ Architects - Galliard
Homes

BP Buncefield, Hemel Hempstead

In the early hours of Sunday 11th December 2005, a number of explosions occurred at Buncefield Oil Storage Depot, Hemel Hempstead, Hertfordshire. Over 40 people were injured; fortunately there were no fatalities.

The fire burned for several days, destroying most of the site and emitting large clouds of black smoke into the atmosphere.



We were subcontracted to help dispose/recover the firewater which was contaminated with fuel. To cope with the quantities received, we operated 24 hrs a day, seven days a week over our Xmas shutdown period. In a 3 week period we received 3500 tonnes of firewater, recovering fuel oil and treating the waste water.

Xmas charity

In 2002 we initiated a Christmas Charity Donation scheme whereby we asked our customers/ suppliers and our staff to nominate charities which we would then donate to via a trust set up by the company and our founding director.

In 2002 we donated **£1000**
In 2003 donations totaled **£1500**
In 2004 donations totaled **£1600**
In 2005 donations totaled **£1610**

For 2006 we donated **£1750** to several charities including the Bristol Dog & Cat Home as detailed below.

If you are a waste producer who sends material to our site, a customer or supplier and wish to nominate a charity for 2007 please email us with the cause or charity to charity@chemrec.co.uk

Sponsor a dog

Chemical Recoveries sponsored four dogs at the Bristol Dog & Cat Home. This covered the cost of food, heating and treats for them over the festive period.



If you wish to sponsor a pet or would like further information, please contact the Bristol Branch Office on 0117 971 4197 or info@rspca-bristol.org.uk or www.rspca-bristol.org.uk

For further information on any of the above, please visit our Website www.chemrec.co.uk

CHEMICAL
RECOVERIES

