

Solutia UK Ltd
(a subsidiary of Eastman Chemical Company)
Corporation Road
Newport
South Wales
NP19 4XF

E. A. Parr
PPC Compliance Assistant
Natural Resources Wales
Plas yr Afon
St.Mellons business park
CARDIFF
CF3 0EY

12th May 2015

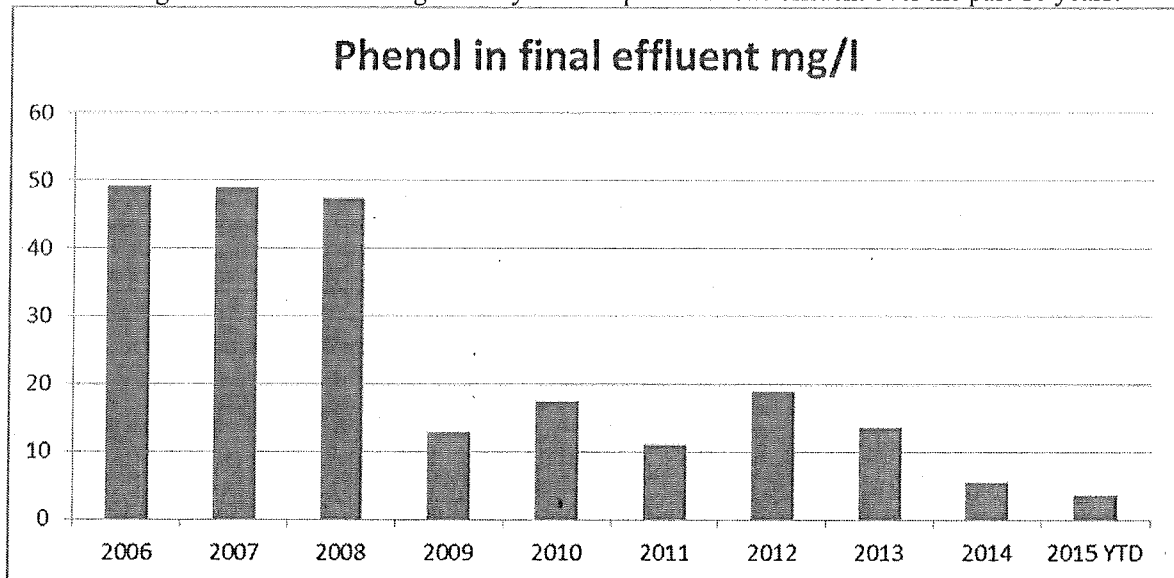
Dear Mrs Parr,

ENVIRONMENTAL PERMIT BR9715IB: IMPROVEMENT CONDITION 31

The Operator shall notify Natural Resources Wales in writing upon completion of a review of the biological treatment plant phenol removal performance, details of any improvements required and the date from which the phenol emission limit value for release point W1 shall reduce to 10 mg/l as a weekly composite sample.

The current 40 mg/l limit was set in August 2014.

The following chart shows the average weekly level of phenol in site effluent over the past 10 years:



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It can be seen from the chart there was a substantial reduction when the Biotreatment plant started in April 2009. In the early years there were many problems associated with material failures due to action of the 'Santicizer' plasticizer in the effluent stream. There were also problems in winter with microbes until we installed a heater in the recirculation tank.

Performance since April 2014 has been significantly improved after repacking of the bioreactor with Santoprene®. The destruction efficiency in the 1st quarter has 2015 has been 93% with an average phenol level of 4 mg/l. In the past 12 months since repacking the average destruction efficiency has been 97%.

The performance of the Santoprene diffusers has been excellent so far but it is too early to know how these will perform longer term and so when the Bioreactor will need repacking. We have established they are superior to the previous ones for chemical resistance. However we have observed potential blockages which would affect air supply to the chambers, affecting phenol destruction.

When we schedule the repacking this we will switch to our other Bioreactor. However our experience has shown that during changeover there will be a decrease in destruction efficiency.

Whilst we are not able to state with certainty we could always comply, we propose that if a weekly limit of 10 mg/l is to be set from 1st October it should be on the basis of an average over the 13 week quarter. This would be consistent with the current weekly limits for benzene and biphenyl in permit BR9715IB.

This letter can go into the public register. Please contact me or Nic if you have any queries; 01633 754367 or 754549

Yours sincerely



R. E. Chandler
Environment Manager

cc S Hampson
N Newton
S Walford