

Schedule 5 Notification

PART B

Permit Number:	BR9715IB
Name of Operator:	Solutia UK Ltd
Location of Installation:	Corporation Road, Newport, Gwent, NP194XF
Location of the emission:	Dequest Amino
Time and date of the emission:	03/02/2023 at 23:55 for approximately 2hrs

Any more accurate information on the matters for notification under Part A	Whilst a batch of Dequest material was being processed in the Amino Reactor, a 25mm hole developed in the vessel and the contents leaked through the vessel wall This resulted in 5.3t of acidic material being released to the dedicated bund area below the reactor vessel, which was then directed to the site effluent treatment plant. The plant deluge system was also activated to prevent any potential vapors from being dispersed out of the immediate area. No adverse impact was observed on the site effluent discharge quality The subsequent investigation noted the following observations related to the failure: • The vessel failed despite; it being installed new only 4 weeks previous (commissioned on the 06/01/23), and passing independent Factory Acceptance Tests • There were no iron results in excess of the 2ppm limit leading up the failure that would indicate failure of the vessels glass lining • The mode of vessel failure is typical of a classic pinhole failure i.e. a small amount of erosion exposes a pinhole size defect in the glass lining of the vessel which allows the corrosive contents of the vessel access to the steel vessel body. This then very quickly leads to a failure of the vessel as seen in this case. Other potential failure modes such as thermal shock damage were discounted as steam heating was not proximate to the failure location
Measures taken, or intended to be taken, to prevent a recurrence of the incident	The investigation identified a number of follow-up actions, including: • Vessel manufacturer to provide a report on the vessel failure • Ensure HCl detectors alarm remotely [Complete]

	• Review if Control System can be programmed to detect unexpected level drops • Review position of CCTV cameras • Reconsider if barriers should be installed to better restrict access to the area under the vessel [Complete]
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment or harm which has been or may be caused by the emission	None proposed
The dates of any unauthorised emissions from the installation in the preceding 24 months	06/02/2023 - Dequest Amino [This Notification] 24/11/2022 - Effluent Cease Discharge 14/07/2022 - Effluent Hg 07/03/2022 - Biphenyl Tanker 30/09/2021 - Effluent Cease Discharge 09/09/2021 - Offsite Effluent Pipeline 21/08/2021 - Boiler 14 NOx 30/06/2021 - Dequest Formalin Pump Leak 09/06/2021 - Effluent Pipeline leak

* Signed:



Date: 09/06/2023

* authorised to sign on behalf of Solutia UK Ltd