

PERMIT NUMBER BR9685IX
DOW CORNING LTD

SCHEDULE 5 PART A INCIDENT NOTIFICATION

This information MUST be FAXED to Natural Resources Wales at the below FAX no. within 24 hr. of an incident occurring.

Revision Date: 06 June 2006

To:	Process Industry Inspector
FAO: Mr Tony Leahey	Natural Resources Wales Rivers House St Mellons Business Park Fortran Road St Mellons Cardiff CF3 0EY
FAX No:	029 20362095
From: Name Of Operator Location of Process:	Judith Sartor Dow Corning Limited Cardiff Road, Barry, Vale of Glamorgan
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Date Information Provided:	7 th December 2016

Part A

Permit Number	EPR/BR9685IX
Name of Operator	Dow Corning Ltd
Location of Facility	Barry, South Glamorgan, Wales
Time and Date of Detection	6th December 2016 21:50

a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
Date and time of event	6th December 2016 21:50 – 22:02
Reference or description of the location of the event	W810, P105 chlorosilane pump. (51.408289, -3.239715)
Description of where any release into the environment took place	A leak of chlorosilane from a pressure gauge assembly in W810 tank farm occurred at approximately 21:50 on 6th December 2016. The leak generated hydrogen chloride vapour which drifted in a north north westerly direction, i.e. towards the main Car park and Cardiff Road
Substance(s) potentially released	Hydrogen chloride vapour
Best estimate of quantities or rate of release	140kg of chlorosilane were released over 20 minutes Engineering calculations estimate that 51kg of hydrogen chloride vapour was generated. As the vapour was primarily absorbed by the water curtains, and any remaining vapour dispersed on site, it is not thought that any significant environmental harm was caused.
Measures taken, or intended to be taken, to stop any emission	A full emergency response was initiated. Water curtains were established to help reduce the impact of the resulting acidic vapour. Within 20 minutes of the leak starting

	operating personnel were able to safely close a valve, which isolated the leak. No hydrogen chloride vapour left the site boundary.
Description of the failure or accident	The exact cause of the failure is to be confirmed. From preliminary inspection it appears that the leak occurred due to failure of a joint. A full root cause investigation is underway and corrective actions to prevent a reoccurrence of this incident will be forthcoming.

b) Notification requirements for the breach of a limit	
Emission point reference source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

c) Notification requirements for the detection of any significant adverse environmental effect, to be notified within 24 hours.	
Description of where the effect on the environment was detected	
Substance(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B- to be submitted as soon as practicable

Any more information on the matters for notification under Part A	A full root cause investigation has now been carried out and recommendations have been issued. The root cause which resulted in the leak was a mechanical failure, a sheared threaded joint on the Nitrogen hose assembly.
Measure taken, or intended to be taken, to prevent a recurrence of the incident	Recommendations: - Develop and roll-out a practical Nitrogen assembly design – which eliminates the use of threaded joints and ensures material of construction is compatible with chemicals involved. - Develop an inspection regime for all N2 assemblies, including unique identification, suitable test/inspection frequency and expiration date. - Develop an Risk Control Procedure for use and management of Nitrogen assemblies.
Measure taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment, which has been or may be caused by the emission.	No impact from incident occurred.
The dates of any unauthorised emissions from the facility in the preceding 24 months.	Previous Schedule 5 notifications: 5 Feb 2015 – W922 HCl 7 Jan 2016 – W949 – HCL and Cl 10 Feb 2016 – W957 CO 13 March 2016 – W930 CuCl

Name	Judith Sartor
Post	Environmental Specialist
Signature	
Date	1 st February 2017