

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the PPC Regulations.

Part A

Permit Number	BV7460ID
Name of Operator	Nexperia Newport Ltd
Location of Facility	Cardiff Road, Newport, NP10 8YJ
Time and date of the detection	14 th June 2023

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment

To be notified immediately	
Date and time of the event	14 th June 2023
Reference or description of the location of the event	Out-of-service chiller serial no. EKI0877
Description of where any release into the environment took place	Fab 11 chiller hall
Substance(s) potentially released	R134a gas
Best estimate of the quantity or rate of release of substances	246kg
Measures taken, or intended to be taken, to stop any emission	As soon as a suitably trained person was available, the gas was completely removed from the chiller to allow for repairs (temporarily stored in suitable gas cylinders). Repairs were completed, and the chiller was partially re-gassed to allow for a leak check to ensure that the repairs were successful. The chiller has not been in use since March 2023.
Description of the failure or accident	The chiller failed a leak check on 14 th June 2023, and a request was made to our maintenance contractor to arrange a repair ASAP. Quote was received 26 th June, PO issued 29 th June. Earliest date we could book in a repair for was 24 th July (we do not have staff on site with F-Gas handling qualifications). Between 24 th – 28 th July the chiller was degassed and repairs were made. Leak check was passed on 28 th July 2023.

(b) Notification requirements for the breach of a permit condition

To be notified immediately	
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	
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Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
To be notified immediately	
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 accurate information on the matters for notification under Part A.	246kg of R134a released amounts to 352tCO₂e. Several factors contributed to the volume of F-Gas released. • The chiller that leaked was out of service at the time, which is why a reduction in efficiency was not detected. • The leak came from two very small sources (an o-ring and a 1" port) and as such the leakage rate was very slow, this meant that the gas detection system in the room did not detect the gas (also compounded by the fact that the roller shutter door to the room was open more than usual due to works ongoing in the area). • The certified contractor did not attend site for an extended time period while awaiting spare parts. • The heat extract setup in the chiller hall includes both incoming and outgoing air fans, increasing air flow – this will have contributed to a decreased likelihood of detecting such a small leak The chiller is sited in the 'Chiller Hall' where there is no LEV (just heat extract) and no associated emission points. The site has a robust Environmental Management System in place and complies with all aspects of the F-Gas regulations including arranging for leak checks to be completed on time by suitably trained personnel. Nexperia staff are also trained on the potential environmental harm associated with a release of F-Gas.
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Measures taken, or intended to be taken, to prevent a recurrence of the incident.	A full '8D' problem solving review has been completed regarding the incident and the outputs of this are that the following actions are to be undertaken to prevent a recurrence of a leak from a similar chiller: 1) Where possible, all chillers over 500tCO₂e F-Gas charge are to be placed on load cells continuously monitoring the total weight, where an alarm will go to the BMS if the weight changes 2) Gas detector heads are to be replaced with a more reliable type which is less prone to saturation (change of supplier) and sited in a more suitable location underneath the chillers, maximising the likelihood of an early detection Additionally, to minimise any future incidents the competent contractor used by Nexperia Newport has been reminded of our expectation that should a leak be detected (either by them during maintenance or leak checks, or by our own measures whereby we would notify them as soon as possible) they would send an engineer to site as soon as possible to degas the chiller into appropriate cylinders thus preventing any further release before repairs can be made.
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	The largest chillers on site (those in the Fab 11 chiller hall where the leak occurred) have been recently replaced with new units which contain a smaller total amount of F-Gas (601kg of R134a each compared to the older chillers containing 940kg) – this reduced total amount of gas means that there is less gas which could potentially be released to the environment in the event of another leak, minimising environmental harm.
The dates of any unauthorised emissions from the installation in the preceding 24 months.	04/10/2022 – CAR_NRW0040562

Name*	Alan Lambie
Post	Director of Facilities and EHS
Signature	
Date	Part A - 28/07/2023 Part B – 11/08/2023

* authorised to sign on behalf of the operator