FREEDOM OF INFORMATION

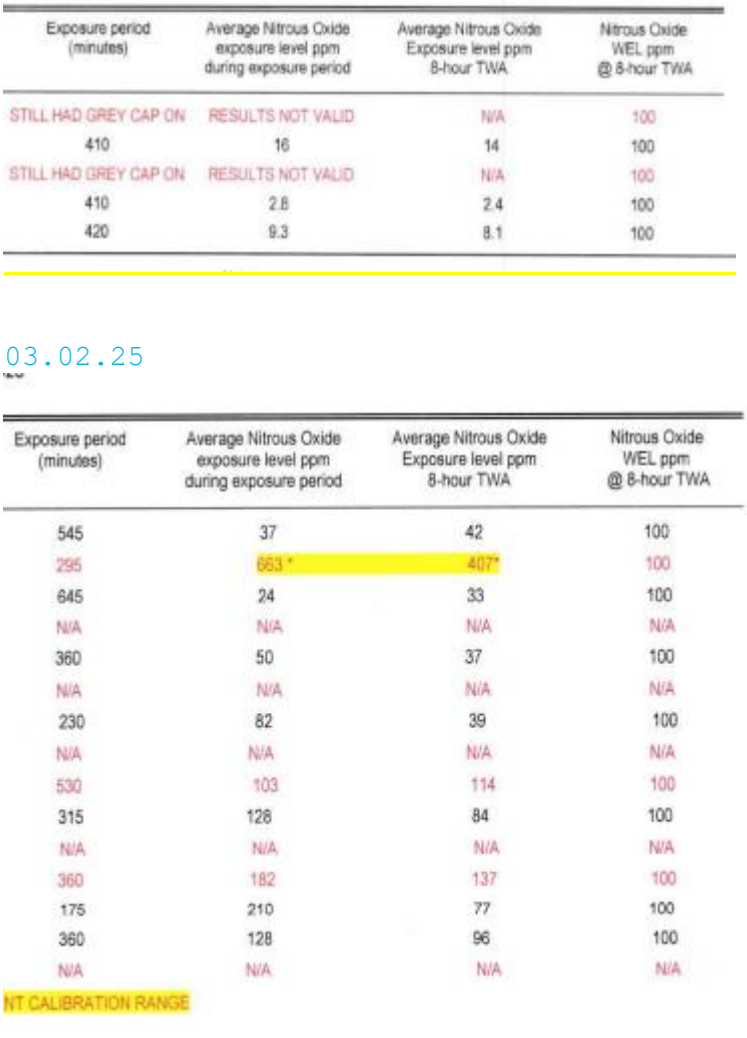
REF: 2026-155
Subject: Nitrous Oxide (Entonox) Controls & Exposure Monitoring in Maternity Services

Dear Sir/Madam,

Thank you for your email dated **23/02/2026** where you requested information about **Nitrous Oxide (Entonox) Controls & Exposure Monitoring in Maternity Services.**

The information you requested is enclosed.

Question	Answer
1. Exposure Monitoring	
• Has the Trust carried out any air monitoring or exposure assessments for nitrous oxide in maternity areas?	Yes
• Did any results show over exposure or levels approaching/exceeding the Workplace Exposure Limit (100 ppm 8 hour TWA)?	Yes
• Please provide a summary of findings.	25.3.26 4/2026 Exposure period (minutes) / Average Nitrous Oxide exposure level ppm during exposure period / Average Nitrous Oxide Exposure level ppm 8-hour TWA / Nitrous Oxide WEL ppm @ 8-hour TWA 450 46 43 100 450 71 66 100 460 60 58 100 460 81 78 100 375 35 28 100 599 25 31 100 185 229 88 100 315 53 35 100 480 20 20 100 150 179 56 100 210 61 27 100 13.4.25 retest

Exposure period (minutes)	Average Nitrous Oxide exposure level ppm during exposure period	Average Nitrous Oxide Exposure level ppm 8-hour TWA	Nitrous Oxide WEL ppm @ 8-hour TWA
STILL HAD GREY CAP ON	RESULTS NOT VALID	N/A	100
410	16	14	100
STILL HAD GREY CAP ON	RESULTS NOT VALID	N/A	100
410	2.8	2.4	100
420	9.3	8.1	100

03.02.25

Exposure period (minutes)	Average Nitrous Oxide exposure level ppm during exposure period	Average Nitrous Oxide Exposure level ppm 8-hour TWA	Nitrous Oxide WEL ppm @ 8-hour TWA
545	37	42	100
295	663 *	407*	100
645	24	33	100
N/A	N/A	N/A	N/A
360	50	37	100
N/A	N/A	N/A	N/A
230	82	39	100
N/A	N/A	N/A	N/A
530	103	114	100
315	126	84	100
N/A	N/A	N/A	N/A
360	182	137	100
175	210	77	100
360	128	96	100
N/A	N/A	N/A	N/A

NT CALIBRATION RANGE

2. Controls Currently in Place	
Please confirm what control measures are currently used in maternity rooms to reduce nitrous oxide exposure, including whether you use: • General ventilation only,	N/A
• Point of use gas extraction/scavenging,	POU scavenging
• Demand valve systems.	N/A
3. Type of Extraction System	

If a nitrous oxide extraction/scavenging system is used, please confirm: • Whether it is a mobile system (e.g. Mediclair MDU), OR	N/A
• A fixed / centralised system (e.g. a Central Destruction System, or Purair750 AGSS or similar).	Fixed AGSS
• Whether point of use extraction is available in all, some, or none of the maternity rooms.	All rooms
4. Health Monitoring for Staff	
• Has the Trust identified a requirement for health surveillance or biological effect monitoring for staff exposed to nitrous oxide?	Yes
• If so, please describe the arrangements.	The Trust has identified a requirement for health surveillance for staff exposed to nitrous oxide. Annually Entonox exposure is measured in all of the delivery rooms to ensure that the scavenger units are working and ensure safe levels. If these results are elevated, the scavanger units are then assessed to ensure they are working corrcetly. Staff identified as high risk- are risk assessed with the option to work in a different department. In the past, staff who were assessed as having high exposure readings were managed through the following arrangements: • Retesting was carried out, with new monitoring badges issued and exposure levels reassessed. • A wellbeing check was conducted through a confidential conversation to identify any underlying health conditions that might contribute to elevated readings. On the second round of testing, results were within normal levels, indicating that exposure

	was controlled and staff health risks were mitigated.
5. Communication with Staff	
• How were the monitoring results, identified risks, and/or changes to control systems communicated to maternity staff?	Email and face to face
• Please specify the communication channels used (e.g. email, briefings, intranet, team meetings, safety reps).	Results of Entonox monitoring are shared with individual staff members if they are identified as having a high reading and a well being conversation is conducted. Repeat testing is then commissioned.
• If any written communication exists, please provide copies where possible.	No written communications available.

If you have any queries or concerns please do not hesitate to contact the Freedom of Information Department. It would be helpful to quote the above reference number in any future communication.

If you are unhappy with the service you have received in relation to your request and wish to make a complaint or request a review of our decision, you should write to The Chief Executive, Bolton NHS Foundation Trust, The Royal Bolton Hospital, Minerva Road, Farnworth, Bolton. BL4 0JR.

If you are not content with the outcome of your complaint you may apply directly to the Information Commissioner. Generally the Information Commissioner cannot make a decision unless you have exhausted the complaints procedure provided by Bolton NHS Foundation Trust. The Information Commissioner can be contacted at The Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire. SK9 5AF.

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Yours sincerely,

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transforming lives...for a better Bolton

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