



REPORT TO: The Health, Safety and Risk Group

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AirSteril units in Northern House (first floor)

Background

In September 2014, we installed air purification units in the control room and office areas on the first floor of Northern House. It was proposed to trial these units, in view of the large number of staff working in this environment and the restrictions around cleaning the area.

These units help to eliminate unpleasant odours and control bacteria and viruses in the air and all exposed surfaces 24 hours a day; 365 days a year, and it had been reported by the supplier that there had been good results reported from other large call-centre organisations around the UK in terms of reduced sickness levels.

The scientific explanation is:

“The units take in contaminated air to purify it using a combination of 5 technologies working in tandem. Internally, UV germicidal irradiation and photocatalytic oxidation which works to eliminate micro-organisms and in addition, a plasma quatro (TIO²) superoxide ions and Triatomic Oxide actively seek and eliminate bacteria, viruses, mould, fungi and volatile organic compounds (VOCs) in the air and all surfaces.”

Details

10 units were installed in key locations around the whole of the first floor. The size and capacity of the units was determined by the supplier to treat the whole area effectively, and were located at above door height in key locations. Initial swab testing after the installation was carried out to ensure that the units were of the appropriate size/ performance.

Cost of units:	£ 4472.00 inc VAT
Installation costs:	£ 582.00 inc VAT
TOTAL:	£ 5054.00 inc VAT

The units have now been working continuously for a period of 9 months and a report has been produced by Workforce planning to show the sickness levels (for illnesses caused as a result of a bacterial or viral infection) for EOC and 111 staff comparing sickness absence (days lost) for the period.



Results:

It should be noted, that this information is based purely on reported sickness absence and is not based on scientific results from testing of air quality or regular swab testing.

	Sickness Reason	S13 Cold, Cough, Flu - Influenza	S14 Asthma	S15 Chest & respiratory problems	S16 Headache / migraine	S21 Ear, nose, throat (ENT)	S23 Eye problems	S25 Gastrointestinal problems	S27 Infectious diseases	S98 Other known causes - not elsewhere classified	S99 Unknown causes / Not specified	Grand Total
111 NORTH	Sep-13	61	9	0	30	9	0	78	0	0	233	420
	Sep-14	20	0	12	40	2	7	76	0	0	78	235
	Dec-13	82	0	48	20	12	15	199	0	56	361	793
	Dec-14	72	0	40	39	19	0	82	0	5	85	342
	Mar-14	26	0	90	247	12	0	165	0	0	262	802
	Mar-15	7	0	0	39	17	8	16	7	19	229	342

EOC NORTH	Sep-13	12	24	12	22	100	-	162	18	0	6	356
	Sep-14	3	6	87	3	12	-	80	0	58	0	249
	Dec-13	42	123	126	21	45	-	150	0	0	5	512
	Dec-14	62	0	36	22	27	-	146	0	0	0	293
	Mar-14	66	198	117	12	142	-	94	0	0	0	629
	Mar-15	39	0	90	69	156	-	108	0	0	87	549

Key points to note:

1. Overall, the trend in number of reported calendar days lost due to sickness shows a reduction from 2013 to 2014 for the same month
2. Within specific sickness reasons, the results vary but some notable areas of reduction are:
 - a. S14 Asthma – although, further work would need to be done to validate this
 - b. S13 Cold, Cough, Flu- Influenza and S15 Chest and Respiratory problems – show a downward trend for the reporting period
 - c. S25 Gastrointestinal problems – a general slight downward trend

Based on the average cost of sickness per day within these areas being **£142.28** (£18.97 per hour, for 7.5 hour day)

Reduction in Days Sickness lost:

111 NORTH					
Sep-13	Sep-14	Dec-13	Dec-14	Mar-14	Mar-15
420	235	793	342	802	342

EOC NORTH					
Sep-13	Sep-14	Dec-13	Dec-14	Mar-14	Mar-15
356	249	512	293	629	549



During the period that these units have been running the Trust has seen a reduction in the number of day's sickness as shown below, and based on the average cost per day (based on 7.5 hours) with the assumption that all sickness absence is covered by overtime, the **saving** to the Trust is:

Month	111 (days saved)	EOC (days saved)	Total days saved	TOTAL SAVING (£)
Sept	185	107	292	41545.76
Dec	451	219	670	95327.60
Mar	460	80	540	76831.20
				£213,704.56

Average cost per day (based on 7.5 hours) = £142.28, based on the assumption that all sickness absence is covered by overtime and this is the additional cost

Taking into account the cost of the units and the cost of installation, the cost benefit to date is **£208,650.56**

The EU Directive 2010/32/EU became statute on 11th May 2013, and requires all NSIs to be reported and investigated. These injuries should be reported through the Datix system and the Infection Control Lead will allocate a responsible person to investigate how they occurred and any actions to reduce the risk in future. The below table shows NSI reported via the Datix system.