

TEXAS DEPARTMENT OF PUBLIC SAFETY

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3/31/2005

TO: All Technical Supervisors
SUBJECT: False negative breath tests

The Office of the Scientific Director has determined a checkvalve in the Intoxilyzer 5000-68 EN can stick and cause false negative test results. The checkvalve is located in the brass fitting that is screwed into the bottom of the sample chamber block on the end nearest the source lamp. This checkvalve can be stuck in the closed position if a subject sucks into the mouthpiece prior to blowing. The checkvalve will remain stuck in the closed position until sufficient pressure is introduced into the instrument to unstick the checkvalve. If a subject blows into the instrument without sufficient pressure to unstick the checkvalve, but with enough pressure to sound the tone, the instrument will accept the sample after a few seconds and the result will be 0.000 g/210 L, regardless of the subject's true alcohol concentration. The instrument's air blanks do not provide sufficient pressure to unstick the checkvalve and the reference sample vapor does not pass through the checkvalve. When this condition occurs, the subject's results will be 0.000, all of the air blanks will be 0.000 and the reference sample will be within tolerance; a valid test.

A thorough search of hundreds of thousands of tests in our data base has revealed four confirmed instances of this occurrence. These tests are listed below:

LNAME	CDOT	TIME	TEST1	TEST2	TRECN	SERIAL
Huerta	9/28/2004	0254	0.000	0.000	SU00648	68-012651
Huerta	9/28/2004	0305	0.000	0.000	SU00649	68-012651
Huerta	9/28/2004	0337	0.180	0.185	VF00929	68-012833
Navarro	9/28/2004	0312	0.000	0.000	SU00650	68-012651
Navarro	9/28/2004	0351	0.295	0.296	VF00931	68-012833
Flores	3/05/2005	0035	0.000	0.000	VI00865	68-012830
Flores	3/05/2005	0110	0.160	0.165	VT00434	68-012918

Note that three of the four 0.000 tests were run consecutively, on the same instrument, on the same day and one of the subjects produced two of the 0.000 tests. Only two instruments produced the four false negative alcohol concentrations.

One similar false negative test was found on an Intoxilyzer 5000-68 instrument. This test is listed below:

LNAME	CDOT	TIME	TEST1	TEST2	TRECN	SERIAL
Ellis	2/22/2003	0045	0.000	0.000	E334929	68-000409
Ellis	2/22/2003	0213	0.067	0.069	E295428	68-000419

Our investigation has determined that a pressure switch that is set too low in an Intoxilyzer 5000-68 will allow almost any breath flow into the instrument, no matter how slight, to activate the pressure switch. This can result in the instrument accepting a false negative breath sample.

On a few occasions, both the 68 and the EN have produced invalid tests (NO 0.020 SUBJECT TEST AGREEMENT) where one subject test result is 0.000 and the other subject test result is a significant alcohol concentration. The cause for the discrepancies in these tests is the same as previously mentioned; a stuck checkvalve in the EN and a pressure switch that has been set too low in the 68.

Even though the possibility of a subject receiving a false negative breath test is extremely remote, the Office of the Scientific Director and CMI are working together to eliminate this possibility. In the mean time, continue breath alcohol testing as before. Only false negative breath tests can occur as a result of a stuck checkvalve in an EN or a pressure switch that is set too low in a 68. There is no possibility of a person receiving a false positive breath test as a result of these circumstances.

Sincerely,



J. Mack Cowan,
Scientific Director