



**HUMAN PERFORMANCE FACTORS GROUP CHAIRMAN'S  
FACTUAL REPORT**

**Human Performance Attachment 7 - Post-Crash Toxicology Report for School Bus Driver**

**Baltimore, Maryland**

**HWY17MH007**

(3 pages)



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Mike Monroney  
Aeronautical Center

P.O. Box 25082  
Oklahoma City, Oklahoma 73125

Thursday, January 26, 2017

National Transportation Safety Board, Highway Safety  
490 L'Enfant Plaza East, S.W.  
Washington, DC 20594

**ACCIDENT #** 0236    **INDIVIDUAL#:** 001    **NAME:** Chappell, Glenn R.    **MODE:** HIGHWAY  
**DATE OF ACCIDENT** 11/01/2016    **DATE RECEIVED** 11/08/2016    **PUTREFACTION:** No  
**N #**    **NTSB #** HWY17MH007    **CAMI REF #** 201600236001  
**LOCATION OF ACCIDENT** Baltimore, MD  
**SPECIMENS** Blood, Gastric, Kidney, Liver, Lung, Muscle, Spleen, Urine

### PRELIMINARY FORENSIC TOXICOLOGY FATAL ACCIDENT REPORT

**CARBON MONOXIDE:** The carboxyhemoglobin (COHb) saturation is determined by spectrophotometry with a 10% cut off and confirmed by chromatography.

>> NO CARBON MONOXIDE detected in Blood

**CYANIDE:** The presence of cyanide is screened by Conway Diffusion, when the COHb level is equal to or greater than 10% or upon special request. Cyanides are quantitated by spectrophotometry and confirmed by chromatography. The reporting cutoff for cyanide is 0.25 ug/mL. Normal blood cyanide concentrations are less than 0.15 ug/mL, while lethal concentrations are greater than 3 ug/mL.

>> NOT PERFORMED

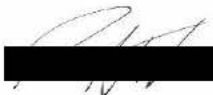
**VOLATILES:** The volatile concentrations are determined by headspace gas chromatography at a cut off of 10 mg/dL. Where possible, positive ethanol values are confirmed by Radiative Energy Attenuation.

>> NO ETHANOL detected in Urine

**DRUGS:** Specimens are analyzed using immunoassay, chromatography, GC/MS, HPLC/MS, or GC/FTIR. Concentrations (ug/mL) at or above those in ( ) can be determined for, but not limited to, the following drugs: amphetamines (0.010), opiates (0.010), marijuana (0.001), cocaine (0.020), phencyclidine (0.002), benzodiazepines (0.030), barbiturates (0.060), antidepressants (0.100), and antihistamines (0.020). Drugs and/or their metabolites, that are not impairing or abused, may be reported from the initial tests. See the CAMI Drug Information Web Site for additional information (<http://jag.cami.jccbi.gov/toxicology/>).

>> 1.858 (ug/ml, ug/g) Carbamazepine detected in Blood  
>> Carbamazepine detected in Urine

c=US, o=U.S. Government, ou=AMC, ou=AMC, cn=RUSSELL  
J LEWIS  
2017.02.01 09:53:10 -06'00'

  
Russell Lewis, Ph.D., F-ABFT  
TC, FAA, Forensic Toxicology  
Research Team CAMI



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

THESE RECORDS MAY BE RELEASABLE UNDER THE FOIA REQUEST 15  
DAYS AFTER SIGNATURE DATE UNLESS WE HEAR OTHERWISE FROM  
FAA NTSB COUNSEL

Mike Monroney  
Aeronautical Center

P.O. Box 25082  
Oklahoma City, Oklahoma 73125

Thursday, January 26, 2017

National Transportation Safety Board, Highway Safety  
490 L'Enfant Plaza East, S.W.  
Washington, DC 20594

|   |                                 |                                 |                      |
|---|---------------------------------|---------------------------------|----------------------|
| <b>ACCIDENT #</b> 0236  | <b>INDIVIDUAL#:</b> 001         | <b>NAME:</b> Chappell, Glenn R. | <b>MODE:</b> HIGHWAY |
| <b>DATE OF ACCIDENT</b> 11/01/2016  | <b>DATE RECEIVED</b> 11/08/2016 | <b>PUTREFACTION:</b> No         |                      |
| <b>N #</b>  | <b>NTSB #</b> HWY17MH007        | <b>CAMI REF #</b> 201600236001  |                      |
| <b>LOCATION OF ACCIDENT</b> Baltimore, MD                                   |                                 |                                 |                      |
| <b>SPECIMENS</b> Blood, Gastric, Kidney, Liver, Lung, Muscle, Spleen, Urine |                                 |                                 |                      |

### CLINICAL REPORT

CLINICAL: Vitreous and Urine are tested for the presence of glucose with reagent strips and by enzymatic spectrophotometric analysis. Postmortem vitreous glucose levels above 125 mg/dL are considered abnormal and postmortem urine levels above 100 mg/dL are considered abnormal. Hemoglobin A1C is analyzed using a latex immunoagglutination inhibition methodology. Hemoglobin A1C blood levels above 6% are considered abnormal. Urine specimens are defined as "dilute" if the creatinine concentration is < 20 mg/dL and the specific gravity is < 1.003. Concentrations of serotonin metabolites 5-hydroxytryptophol (5-HTOL) and 5-hydroxyindole-3-acetic acid (5-HIAA) are measured by LC/MS. A 5-HTOL/5-HIAA ratio value < 15 pmol/nmol is not consistent with ethanol ingestion, while a ratio value > 15 pmol/nmol is indicative of ethanol ingestion.

>> 17820 (mg/dl ) Glucose detected in Urine



Russell Lewis, Ph.D., F-ABFT  
TC, FAA, Forensic Toxicology  
Research Team CAMI

c=US,o=U.S. Government,ou=AMC,ou=AMC,cn=RUSSELL J LEWIS  
2017.02.01 09:53:30 -06'00'