DEPARTMENT OF THE ARMY
HEADQUARTERS
FOB 192
CAMP STRONGHOLD FREEDOM 09311

AOSO-SFA-TFD-NBC 7 June 2002

MEMORANDUM FOR LTC David L. Bowman, Commander, FOB 192, Camp Stronghold Freedom 09311

SUBJECT: Fumes in OPCEN Vicinity of MSG Coburn's Work Area

1. On 3 June 02, I sent the following message to the FOB 192 medical section:

"There are fumes rising from beneath the OPCEN floor in the area of MSG Coburn's work area -- nobody noticed the fumes until the outside air temperatures started to rise. From a preventative medicine standpoint, we may want to look at ways to eliminate the fumes -- I would estimate that the fumes are POL."

2. On 5 June 02, I contacted the 227th Medical Detachment and requested an air quality sample of MSG Coburn's work area. Latter that day, the 227th Medical Detachment used hand-held gas pumps and detector tubes to perform tests. Detector tubes for benzene, toluene, methyl ethyl ketone (MEK), trichloroethylene, gasoline and petroleum distillates were used by 227th Medical Detachment personnel. Benzene, MEK, toluene and gasoline were detected. There were no detectable readings for petroleum distillates or trichloroethylene.

3. On 5 June 02, I used a Drager Gas Detection Pump 'Accuro' and tested Drager Tube Set I and Set V. I sampled the air beneath the OPCEN floor in MSG Coburn's work area. One of the ten tubes tested positive. The Simultaneous Phosphoric Acid Ester (G Series nerve) tested positive. I discussed the results with FOB 192 medical section personnel and recommended that they get CHPPM to conduct thorough air quality sampling as soon as possible.

4. On 6 June 02, CHPPM visited the OPCEN but did not take any samples.

5. On 7 June 02, I contacted Tech Escort at K2 and asked that they confirm my positive test for Simultaneous Phosphoric Acid Ester (G Series Nerve). SSG Brian K. Lilly, D Company, TEU, used a Drager Gas Detection Pump 'Accuro' and confirmed a positive test for Simultaneous Phosphoric Acid Ester. SSG Lilly is certified to perform this test. SSG Lilly sealed the tested tube in a plastic zip lock bag (with 100 mph tape) and recorded date, time and location information on the sample. Approximately one hour latter, SSG Lilly conducted a test with the M90 and determined the concentration as less than an immediate lethal dose.

AOSO-SFA-TFD-NBC
SUBJECT: Fumes in OPCEN Vicinity of MSG Coburn's Work Area

6. On 7 June 02, I contacted the CHPPM site survey team and discussed the positive findings. I requested that CHPPM conduct an air quality survey of MSG Coburn's work area as soon as possible. CHPPM sent Michael S. Fischer to conduct air sampling and testing. On 7 June 02, Mr. Fischer, using a Multi Vae Plus PGM 50-5P found 2-3.1 ppm in the breathing zone and 16-27 ppm under the floor. Mr. Fischer placed the SKC Aircheck 52 personal sampling pump into operation at approximately 1015 Z – the SKC will remain in continuous operation for eight hours. Mr. Fischer will retrieve the SKC at approximately 1815 Z, today.

7. I recommend that personnel in the OPCEN, especially in MSG Coburn's work area, be interviewed for the purpose of determining what symptoms they have experienced over the past weeks. I recommend that we make sure the TEU gets the dragger tube sample to the nearest location for further testing, ASAP. Further, I recommend that we consider relocating the OPCEN. CJSOTF-A-NBC-OIC, Major Michaels, may provide additional guidance.

// ORIGINAL SIGNED //

DANIEL R. CYPHER
CPT, IN, WVARNG
Battalion Chemical Officer

CF:
Executive Officer, FOB 192
Operations Officer, FOB 192

From: Burton, Robert MAJ
Sent: Friday, June 07, 2002 6:12 AM
To: K2-All Personnel
Subject: RUNNING TRACK CLOSED - POTENTIAL ENVIRONMENTAL CONCERN

The Installation Commander has ordered the immediate closure of the running track, south of the LSA and North of the Uzbek ASP. There is a potential environmental concern south of the track which is now under evaluation. The area from the southern end of the track to the Uzbek ASP is being marked as off limits and is to be avoided by all personnel. There are no living spaces or work activities in the area of concern.

DEPARTMENT OF THE ARMY
227TH MEDICAL DETACHMENT (SANI)
62ND MEDICAL BRIGADE
FORT LEWIS, WASHINGTON 98433-5000

REPLY TO
ATTENTION OF:

AFZH-MGE-E

7 June 2002

MEMORANDUM FOR RECORD

SUBJECT: Results of Air Monitoring, Building FOB 192, Camp Stronghold Freedom, Uzbekistan

1. On 5 June 2002, the 227th Medical Detachment (PM Sanitation) was contacted by a CPT Cypher to see if the Detachment was capable of performing indoor air quality sampling. The reason for the request was that the individual was expressing concerns about odors present in building FOB 192. The Detachment has the capability to measure various parameters using gas detector tubes with a hand pump, and therefore agreed to investigate the source of the complaints.

2. The building in question is located inside a concrete aircraft maintenance/storage shelter. It is constructed of wood; two-storeys tall and recently had its second story conference room painted.

3. Detachment personnel were shown several locations within and around the building. The only location which had a noticeable odor was located in the back of the first floor's center room. A distinct odor was detected by all Detachment personnel in this location.

4. To further investigate the possible identity of the odor, two hand pumps and various gas detector tubes were utilized. Samples were taken from two holes in the floor of the building (which had been drilled to run electrical and/or computer lines into the room and opened onto the original concrete floor). Detector tubes for benzene, toluene, methyl ethyl ketone (MEK), trichloroethylene, gasoline and petroleum distillates were utilized during the sampling. These analytes were chosen because they are all common components of substances routinely used in aircraft maintenance.

5. The results of the sampling yielded the following results:

    a. A small, measurable amount of benzene (approximately 4 parts per million).
    b. Trace (barely detectable) amounts of MEK, toluene and gasoline.
    c. No detectable readings for petroleum distillates or trichloroethylene.

6. The measured readings are not unexpected given the previous use of the facility (for aircraft storage/storage) and the recent painting that had taken place. However, given that there were detectable readings, it was decided to consult with the team from the U.S. Army Center for Health Promotion and Preventive Medicine-Europe (CHPPM-Europe), who are currently located at Camp Stronghold Freedom performing a variety of other environmental sampling projects.

AFZH-MGE-E
SUBJECT: Results of Air Monitoring, Building FOB 192, Camp Stronghold Freedom, Uzbekistan

The CHPPM-Europe team was notified of the results and agreed to further investigate the matter to determine if the building warranted more extensive sampling.

4. The POC for this memorandum is the undersigned DSN 640-2111 or email stacy.mosko@us.army.mil.

Stacy A Mosko

STACY A. MOSKO
CPT, MS
Commanding

CF:
TF 261 CDR
SGT Fisher (19th SF GP)

From: Love, Albert, COL, LTF CDR
Sent: Saturday, June 08, 2002 5:59 AM
To: Schleicher, Michael, LTC, LTF DCO
Cc: Bowman, David, LTC, FOB192; Angus, George, CSM, FOB192
Subject: FW: Chemical Survey

-----Original Message-----
From: Love, Albert, COL, LTF CDR
Sent: Saturday, June 08, 2002 1:56 AM
To: CJTF180-DCJS
Cc: CJTF180-DIROPS; CJTF180-CJ3-NBC
Subject: Chemical Survey

Sir, The HAS (bunker) occupied by the 2/19 SF JOC has tested positive for chemical contamination. The tests were not as conclusive as in bunker 1 and 2, but NCO's and officers working in the facility complain about headaches and eye irritation for the past month. We are testing all HAS structures occupied by U.S. personnel today/tonight. The TEU worked last night in our ASP - good news there. Nothing detected from sampling in the three bunkers there or in the surrounding area. No activity on the chemical alarms last night... We need to know more about what we've run into - and what mitigating actions should be implemented. With a positive hit in the main cantonment area the situation poses a much greater risk to soldiers. Updated situation map attached. Need some expert advice quick. v/r Al

Map001.ppt

DEPARTMENT OF THE ARMY
U.S. ARMY SOLDIER AND BIOLOGICAL CHEMICAL COMMAND
5183 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MARYLAND 21010-5424

REPLY TO
ATTENTION OF:

AMSSB-CS

22 June 02

MEMORANDUM FOR LTC Thomas Wolozyn, USCENTCOM Chemical Officer, Macdill AFB, FL.

SUBJECT: Samples received From K2

1. Samples received from K2 were analyzed. All the samples were subjected to head space analysis for Chemical Warfare Material (CW), as outlined in the report. No CW materials were found. A few samples were selected to have a full spectrum analysis run to determine what types of non-CW material exists. The full analysis identified mostly Hydrocarbons such as Toluene. Various other compounds such as plasticizers, Benzaldehyde, Acetophenone, Styrene, Pyridine, and Azulene were identified. The report also identifies various compounds of no significance.

2. The report is provided for your review and distribution to CENTCOM Staffs and other interested parties.

3. SBCCOM POC is SFC Sean M. Branham at DSN: 584-6231/6200 SIPR Mail: smbranha@sbccom-snet.army.smil.mil

FOR THE COMMANDER

/s/
EDWARD W. NEWING
COL, GS
Chief of Staff

Encl

Summary

Two drums were delivered to the Edgewood Chemical Biological Center (ECBC) Chemical Transfer Facility (CTF) on Sunday, June 16, 2002, at 2020 hours.

The drums were unpacked in the CTF on Wednesday afternoon, June 19, 2002. Based on the chain of custody documents, the drums contained the following items: 10 pairs of solid sorbent sample tubes; 7 functioned Drager sample tubes; 16 swipe samples; 28 soil samples; 3 concrete samples; 4 wood samples; 2 water samples and 7 functioned M256 kits. Photographs of many of the items are available by request.

Upon examination of the items and in consideration of the need for immediate evaluation, a decision was made to concentrate analysis on the solid (soil, wood, concrete) and solid sorbent tubes. To that end, the ten sets of solid sorbent tubes were delivered to the Monitoring Branch Laboratory on Wednesday afternoon, June 19, 2002 at 1605 hours. At the same time, technicians prepared those samples listed as soil, wood and concrete for low-level monitoring as well.

Four out of the ten pairs of tubes contained only Tenax packing (samples 001AA, 003AC, 005AC, and 009AA). These tubes were analyzed for nerve agents Tabun (GA), Sarin (GB), Soman (GD), Cyclohexyl methylphosphonofluoridate (GF), vesicant Bis-(2-chloroethyl)sulfide or Distilled Mustard (HD) and the Mustard breakdown product 1,4-Dithiane.

Analyses of GA, GB, GD, GF, HD, and 1,4-Dithiane were performed utilizing a gas chromatogram equipped with a mass spectrometer (GC/MS) in the Selected Ion Monitoring (SIM) mode. These analyses were performed according to the Monitoring Branch Quality Control Plan for Chemical Agent Standard Reference Material (CASARM), Revision 6, June 2000. **There were no detections of any of the aforementioned compounds on these sample tubes** (results are reported in Table 1).

In order to provide possible identification of some of the non-CW materials detected, two samples were chosen to analyze by GC/MS Full Scan (003AC and 005AC). Sample 003AC contains mostly hydrocarbons, the largest peak being Toluene (5.6% of the total peak area). Other tentatively identified compounds (TICs) include phthalates or plasticizers (6.8%), Benzaldehyde (3.6%), Acetophenone (1.6%),Benzophenone (0.6%), Methyl salicylate (0.5%), Styrene (1.1%), Pyridine (1.9%), and Azulene (0.9%). Sample 005AC contains mostly hydrocarbons, the largest peak being Toluene (4.5% of the total peak area). Other TICs include Cellosolve (1%), Benzaldehyde (3.2%), Acetophenone (5.2%), Azulene (.3%), Methyl salicylate (0.4%), Benzothiazole (0.6%) and Benzophenone (0.5%).

Three pairs of tubes contained Carbonex multi-bed packing (samples 005AA, 008AA, and 013AC). As of this writing, one sample (sample 005AA) was analyzed by GC/MS Full Scan. Sample 005AA contains mostly hydrocarbons. TICs include Methyl cellosolve (2.6%), Cellosolve (7.5%), Butyl cellosolve (0.8%), Benzaldehyde (1.6%), Acetophenone (2.1%),

Methyl salicylate (0.4%), Benzoic acid (0.89%) and Benzophenone 0.5%). The remaining tubes will be analysed and reported in a subsequent final report.

Three sets of the tubes contained HayeSep packing (samples 004AC, 006AA, and 012AC). As of this writing, one sample, 012AC was analyzed by GC/MS Full Scan in order to identify possible industrial compounds on the tube. However, sample 012AC did not chromatograph well. There appeared to be no sample on the tube. No Full Scan results can be reported. The remaining tubes will be analysed and reported in a subsequent final report.

In order to obtain rapid results from the solid samples, they were each placed in a separate sealed bag and heated in order to volatilize contaminates. Upon completion of the heating cycle, the air contained within the bags was collected on a Tenax sorbent tube. This process is known as "headspacing" and was performed in accordance with the Monitoring Branch Quality Control plan. The sorbent tubes were
analyzed for GB, GD, HD, GF, and Lewisite (L) by GC/MS and for Ethyl-S-dimethylaminoethyl methylphosphonothiolate(VX) by GC/FPD. **There were no detections for these CW compounds.** Results are reported in Table 1.

As a means to identify possible non-CW contaminants in the solid samples, several samples were also analyzed by GC/MS Full Scan with the following results:

Sample Number 0206190622-M01 (2090- Wood): Largely hydrocarbons, Azulene (1.5%), Butylated Hydroxytoluene –BHT (0.9%).

Sample Number 0206190641-M01 (004AA(ISAF)-Wood): Largely hydrocarbons, Benzaldehyde (2%), Acetophenone (1.4%), Azulene (1%), Butylated Hydroxytoluene – BHT (1%)

In summary, there was no evidence of CW material detected in either the solid sorbent tubes collected in-situ or those collected as a function of headspacing samples of wood, soil or concrete. However, there was evidence of multiple non-CW compounds detected.

Table 1

Analyses results
6/20-21/2002

(ND = Not Detected NA = Not Analyzed)

ITEM ID as received	Matrix	GA	GB	GD	HD	1,4 Dithiane	L	VX as G-Analog	GF
Detection limits as Nanograms per tube		**0.5**	**0.6**	**0.2**	**1.0**	**1.0**	**1.0**	**0.6**	**0.7**
001AA	Tenax Tube	ND	ND	ND	ND	ND	NA	NA	ND
003AC	Tenax Tube	ND	ND	ND	ND	ND	NA	NA	ND
005AC	Tenax Tube	ND	ND	ND	ND	ND	NA	NA	ND
009AA	Tenax Tube	ND	ND	ND	ND	ND	NA	NA	ND
609	Gauze Pad (Listed as soil)	NA	ND	ND	ND	NA	ND	ND	ND
1836	Granular soil	NA	ND	ND	ND	NA	ND	ND	ND
2104	Soil	NA	ND	ND	ND	NA	ND	ND	ND
2359	Soil and broken concrete	NA	ND	ND	ND	NA	ND	ND	ND
3033	Soil and clay	NA	ND	ND	ND	NA	ND	ND	ND
4560	Soil	NA	ND	ND	ND	NA	ND	ND	ND
003AA	Soil	NA	ND	ND	ND	NA	ND	ND	ND
004AA	Soil Wood	NA	ND ND	ND ND	ND ND	NA	ND ND	ND ND	ND ND
007AA	Concrete	NA	ND	ND	ND	NA	ND	ND	ND
2090	Wood	NA	ND	ND	ND	NA	ND	ND	ND
2219	Soil	NA	ND	ND	ND	NA	ND	ND	ND
2312	Soil	NA	ND	ND	ND	NA	ND	ND	ND
006AA	Soil	NA	ND	ND	ND	NA	ND	ND	ND
2071	Soil and concrete	NA	ND	ND	ND	NA	ND	ND	ND
4516	Gauze Pad	NA	ND	ND	ND	NA	ND	ND	ND
3572	Soil with brown chunks	NA	ND	ND	ND	NA	ND	ND	ND
2443	Soil	NA	ND	ND	ND	NA	ND	ND	ND
001AA	Soil	NA	ND	ND	ND	NA	ND	ND	ND
002AA	Soil & gray granular powder	NA	ND	ND	ND	NA	ND	ND	ND
003AA(ISAF)	Dry brown powder	NA	ND	ND	ND	NA	ND	ND	ND
004AA(ISAF)	Soil Wood	NA	ND ND	ND ND	ND ND	NA	ND ND	ND ND	ND ND
1816	Gray powder with chunks	NA	ND	ND	ND	NA	ND	ND	ND
3620	Soil and concrete	NA	ND	ND	ND	NA	ND	ND	ND
3565	Soil-granular	NA	ND	ND	ND	NA	ND	ND	ND
2029	Gauze (listed as soil)	NA	ND	ND	ND	NA	ND	ND	ND
3575	Brown powder	NA	ND	ND	ND	NA	ND	ND	ND

1859	Concrete	NA	ND	ND	ND	NA	ND	ND	ND
3108	Brown powder	NA	ND	ND	ND	NA	ND	ND	ND
007AA(ISAF)	Concrete	NA	ND	ND	ND	NA	ND	ND	ND
2376	Wood	NA	ND	ND	ND	NA	ND	ND	ND
2402	Wet soil	NA	ND	ND	ND	NA	ND	ND	ND
2707	Fine soil	NA	ND	ND	ND	NA	ND	ND	ND
3049	Soil with wood shavings	NA	ND	ND	ND	NA	ND	ND	ND