

J. W. FULBRIGHT  
CHAIRMAN

*work*

United States Senate  
COMMITTEE ON  
FOREIGN RELATIONS

September 6, 1973

Dear Matt:

What is your reaction to  
the enclosed? Is there any-  
thing significant here?

Dick

Enclosure

J. W. FULBRIGHT  
CHAIRMAN

United States Senate  
COMMITTEE ON  
FOREIGN RELATIONS

Dick-

This material was  
dropped off today by  
an ex-service man in  
Vietnam. He has been  
working with Martin  
Jensen in Sen. Hughes'  
office if you want  
more information.

Jane  
\* Munitions specialist

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DEPARTMENT OF BIOCHEMISTRY

BERKELEY, CALIFORNIA 94720

June 29, 1973

Mr. Steve Hawkins  
704 79th Street  
Kenosha, Wisconsin 53140

Dear Steve:

I have just arrived back at my Berkeley post and hasten to answer yours of May 17.

In regard to the Chicago meeting of the American Chemical Society, I am not hopeful that the Society will see fit to sponsor a session on CW. We will have to go it alone. I will write soon to Science for the People "types" in Chicago to see if they can arrange a meeting, probably on the evening of Wednesday, August 29.

As you can see from the enclosed, loss of HCN is a general property of nitriles following heating. I plan to recrystallize some CS and check the yield of HCN. HCN is also split out of nitriles in the mass spectrometer, so it seems that this is a common route of fragmentation and degradation of these molecules. This is probably what the briefing officers had in mind.

I think it would be useful if you could tell your experience and I could, on the same program, give the results of HCN yields from CS. We might get a little attention from the Tribune, "The World's Greatest Newspaper."

I trust the VVAW made it on the White House "enemy" list.

With best regards,

Sincerely,

J. B. Neilands

JBN:ar  
Encl.

cc: Mr. Malvern Lumsden  
SIPRI  
Wennergren Center, Pylon  
166 Sveavagen  
Stockholm, Sweden

7: Feigl "Spot Tests", *Chemist*, 1964

DUPS 3

69

ALIPHATIC NITRILES

265

not occur with all  
agnostic value in the

in a micro test tube together with some mg of hydrated oxalic acid. The tube is immersed as deeply as possible in a glycerol bath preheated to 200°. After 5 min. the tube is cut 2 cm below its open end and the heating is repeated, in order to eliminate any oxalic acid. After cooling some mg of thiobarbituric acid are added and the mixture is heated to 140-160° in a glycerol bath. A positive response is indicated by the formation of an orange product.

diacetyl is placed in a  
ation. A pinch (tip of  
immersed in a boiling  
solution develops this

The behavior of 20 aliphatic and aromatic C- and N-cyano compounds was examined and limits of identification in the range 2-20  $\gamma$  were obtained.

10  $\gamma$  dicyanodiamide

The test may not be applied directly in the presence of compounds which yield oxamide when treated with oxalic acid under the conditions of the test. Such interfering materials include: ammonium salts, amides of acids, amino acids and ureides. In most cases, the interfering materials can be removed by taking advantage of the solubility of cyanides in benzene.

, *p*-chloroaniline bigu-

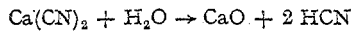
1 Unpublished studies, with J. R. AMARAL.

iphenylguanidine (incl-  
uanamine, acetoguan-

### 69. Aliphatic nitriles (R-C $\equiv$ N group)

#### (I) Test through pyrolytic release of hydrogen cyanide<sup>1</sup>

If aliphatic nitriles (cyanides) are heated to 250°, considerable amounts of hydrogen cyanide are split off; this is not true of aromatic cyanides nor of other nitrogenous organic compounds. The reaction is aided by the presence of calcium oxide and calcium carbonate; it then occurs even at 150°. This surprising result is due perhaps to an innate tendency of aliphatic cyanides containing the -CH<sub>2</sub>CN group to release HCN when pyrolyzed, and the latter is then initially bound as calcium cyanide. The residual material or radical then yields water (as quasi superheated steam) which in turn brings about the hydrolysis (pyrohydrolysis)\*:



The volatile hydrogen cyanide formed is easily detectable by the color reaction with benzidine acetate and copper acetate described on p. 546.

**Procedure.** A little of the solid test material or the evaporation residue from a drop of its solution is mixed in a micro test tube with a few cg of a 1:1 mixture of calcium carbonate and oxide. The tube is placed in a glycerol bath

\* The formation of HCN by pyrohydrolysis can be clearly demonstrated by the following experiment: KCN is fused in a Pyrex test tube until copper acetate-benzidine acetate paper is slightly blued. If the cooled salt in the test tube is then mixed with an excess of MnSO<sub>4</sub>·H<sub>2</sub>O and the mixture taken to 200°, much HCN is formed. The steam given off from the hydrated manganese sulfate, which loses its water in the temperature range 150-200°, hydrolyzes the alkali cyanide with production of HCN.

Steve: You have made a good point in your query about the yield. CS needs to be checked because it's not a simple aliphatic



UNIVERSITY OF SOUTH FLORIDA

TAMPA • ST. PETERSBURG

Mr. Wm. E. Amos  
2111 1/2 North B St.  
Tampa, Florida 33607

Aug 1, 1973

HUGHES  
Hon. Senator ~~Edward Kennedy~~  
Senate Armed Services ~~Sub~~-Committee  
Senate Office Building  
Washington, D.C.

HUGHES  
Senator ~~Kennedy~~

This letter is being written to you by way of request of Mr. Steven Hawkins, formerly of the Vietnam Veterans Against the War (VVAW). He and I were stationed together in Vietnam and he asked me to supply certain and/or further information on munitions which we were loading there at the time we were there as well as procedures, policies, etc. I am going to have this letter notarized so that you may enter it into evidence if you care to do so.

Before anything else is said, please disregard the Univ. of So. Fla. letterhead; it is the only paper which my roommate has available. I have no connection with USF whatsoever and they have none with me.

Would you be willing to serve as a witness to the Senate if called?

Yes I would.

How did you find out about the fact that BLU-52 bombs filled with CS gas became poisonous gas when used with Napalm bombs and burned?

I learned this fact, or was told it, by the flight line supervisor in Cam Ranh Bay., while I was loading for a mission involving the use of the BLU-52 and napalm bombs. It was more an informal answer to a question of why the strange configuration and combination of munitions?  
Who else higher up had access to this knowledge?

I do not know, even to guess.

What other kinds of gas munitions were stored or/and used there?

Other than the CS type gas and liquid propane canisters followed by a 15 minute wait and than a napalm strike, there was only one other gas munition that

I loaded that I know of. I know little of the actual composition of the gas, but it was considered so hazardous, that the pilots were instructed to dispose of the containers (it was a cluster bomb unit - CBU- 13 or CBU-16 I believe) in the



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*ocean even- and especially - if the unit was not used against the enemy. One flight only- not to be seen again.*

*How often did we use these unusual items?*

*I only loaded the Blu-52 personally in Cam Ranh Bay in about the fall of 1969. The CBU mentioned was loaded by me in Feb - March of 1970, and I heard of its being loaded in Da Nang sometime between Christmas of 1970 and the time of President Nixon's limited incursion into Cambodia.*

*What were the special circumstances around their use and how was it determined when to use them?*

*The BLU- 52 s were used in Cam Ranh Bay when the Army Firebase Kate was under siege and later evacuated. We were to destroy our own weapons so they wouldn't be used against us as the Army retreated. After the VC had taken over the Firebase, we were to come in and drop the BLU-52s, and then slather them with napalm. To my knowledge, they were rarely used.*

*Do you know anything about a gas called VQ?*

*No.*

*Who made the decision to use them and from what level of command?*

*I do not know.*

*With much thanks and respect,  
William E Amos*



and to the best of my knowledge, we never used the BLU-52's without Napalm. After seeing these items loaded on munitions trailers, I then saw them being transported to the aircraft on the Flight Line. I cannot see whether they were deployed in actual combat or not. One person who transported them to the Aircraft is Tom Lawson who was also a munitions specialist ( AFSC 46150). His current address is: Box 96023 Lake City, Fla. 32055 home phone (904) 752-7442, work phone (904) 752-7891. He was assigned to Line Delivery crew while I was assigned to Mark-36 crew, and later to Cobra III Crew. He has confirmed to me in writing that he was also told that this combination was lethal. He said to the best of his knowledge that it was not deployed, but only taken to the aircraft and later returned to the storage sites. We both only worked 1 shift out of the 3 daily shifts however and are not directly knowledgeable if this was deployed while we were off duty.

Bill Amos also knew of this policy and knows that this combination was deployed from Cam Ranh Bay AB during the evacuation of Firebase Kate in Sept or Oct 1969. He was a weapons Specialist ( AFSC 46250) and was then assigned to the 412 MMS at CRB AB. He has confirmed this to me in writing and is willing to testify if called. His current address is 2111 1/2 North "B" St. Tampa, Fla. 33607. no home phone; work phone is (813) 877-5353.

Another munitions item that should be specifically investigated is the CBU-13 which I believe was an illegal gas filled weapon. I believe we used them once or twice at DaNang. Bill Amos told me he saw them used both at DaNang and Cam Ranh Bay.

Another item was the CBU-49 anti personnel weapon that had a fiber-glass shell around it, creating non-metallic shrapnel which is undetectable by X-rays.

Another category is the variations of Napalm we used, namely napalm B, super napalm, and others which burned so violently that it consumed all the available oxygen thereby causing a temporary loss of consciousness and consequent death from over exposure to intense heat. These forms of napalm also create large amounts of Carbon Monoxide which is lethal. Even regular napalm should be in violation of prohibition against chemical and anti-personnel incendiary weapons.

Another item is the M26-36 ( Mk-36) Magnetic Proximity Fuze and related components such as the Mk 74 or 75 Destruct Kits, ect.

Another item is the Flechette warheads for the 2.75 " Folding Fin Aircraft x Rockets ( FFAR).

Another category is White ~~Phosphorous~~ Phosphorous ( WP or Wille Peter). These were deployed from 2.75" FFAR rockets( as war heads) and from clusters in canisters.

Another CBU is the CBU-24 ( baseball BLU) anti-personnel bomb.

Another practice was fuse extenders or daisy cutters, which when used with a regular High Explosive (HE) General Purpose(GP) fragmentation Bomb, makes it into an anti-personnel device by detonating <sup>it</sup> one or several feet above ground thus dispersing the shrapnel in a spherical rather than in a "V" shape pattern. This makes most protection procedures( helmets, fox holes, trenches, lying flat on the ground, ect.)ineffective and increases the killing range.

#### OKINAWA - 1969- 1970

While stationed there, i witnesses a bizarre pattern of cover ups, and covering up of the cover ups for falsification of official government records. There was also a large amount of harrassment and violations of the UCMJ. I found that all attempts to improve our situation through channels and regular administrative remedies were exhausted with no effect. This led to gross deterioration of discipline, morale and performance. ~~whinnox~~ This culminated in a general strike at one point in which even several supervisors and crew chiefs participated. We were then told in a briefing of some falsification of the permanent, official records. This was done as the facts were being transfered from the daily field reports to the permanent records . The NCOIC and assistant NCOIC of administration were the persons who briefed us and the assistant NCOIC said he was a computer programming specialist and that is why he was assigned there and that he would correct this problem.

During some periods, it was an open secret that we were bombing Cambodia and especially Laos. This was apparent from the security leaks from our supervisors, the inappropriateness of the delay elements in the fuses for the targets we were

allegedly bombing, from the tremendous increase in our work load-- especially during the period of approx. Dec 18th or 20th 1969-Jan.7, 1970 and from the amount of the falsification of the hours worked by the munitions crews. Our missions were over twice the normal during that period. ( was there officially a bombing halt?)

Whenever safety violations were brought to the attention of the military supervisors and requests made for equipment that was not faulty, they were just ignored. Many very defective and dangerous pieces of equipment did not get removed from active service until i paid a personal visit to Mr Yeager who was a civilian in charge of munitions safety for the whole island, i believe.

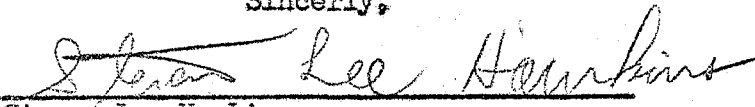
I will be glad to verbally go into details surrounding these events as well as white washing of congressional and other investigations if it is desired. To the best of my recollection, the main person in charge of supervising the falsifications was Major Hoppe who was second in command of the squadron.

DOCUMENTATION:

If desired, i can produce letters to me from Mr Amos and Mr. Lawson about the munitions operation mentioned above. Copies of my military records will confirm my status, assignments, security clearance, qualification in the munitions career field.

See the attached letter confirming the decomposition of CS to HCN( hydrogen cyanide) with heat. A great deal of additional chemical documentation is also available if desired.

Sincerely,

  
Steven Lee Hawkins