APPENDIX B

Cited Documents

APPENDIX B - CITED DOCUMENTS

Anderson, Raymond L., Major, CmlC

1971 Iron Mountain (Rattlesnake Gulch) Radioactive Material Burial Site, 29 July 1971. U.S. Army Chemical School, Fort McClellan, Alabama.

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1957d Meeting, 13 November 1957. The Chemical Corps School, Fort McClellan, Alabama.

1958a Meeting, 8 January 1958. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

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1958c Minutes, 13 August 1958. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

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1959b Meeting 14 April 1959. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

1959c Meeting 7 October 1959. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

1959d Meeting 17 November 1959. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

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1971 Iron Mountain (Rattlesnake Gulch) Radioactive Material Burial Site, 29 July 1971. U.S. Army Chemical School, Fort McClellan, Alabama.

Fort McClellan CWM, June 1998

Report Title ----IRON MOUNTAIN (RATTLESNAKE GULCH)
RADIOACTIVE MATERIAL BURIAL SITE

Prepared by ---- RAYMOND L. ANDERSON
Major, CmlC
C, Health Physics Div, USACMLCS

(THIS REPORT IS TO BE RETAINED AS A PERMANENT RECORD)

REPORT SUMMARY

On 18 February 1971, Health Physics Division personnel discovered an old burial grounds for radioactive material. The area was formerly known as Rattlesnake Gulch, however, the present name is Iron Mountain. A radiological survey of the area yielded a total of 22 hot spots on the surface of the ground. The survey results and a sketch of the area are contained in Section III of this report.

No records were available at the Chemical School indicating what was buried in this area or when it was buried. Several individuals were contacted who had knowledge of this area. Section IV contains a letter resulting from this contact.

Health Physics Division was given the mission of cleaning up this area and disposing of any radioactive material recovered in accordance with current AEC regulations.

As time allowed, Health Physics Division personnel explored the burial grounds with picks and shovels. Three beach cans filled with rad lab waste were uncovered. In addition, two lead cylinders were recovered containing quantities of cesium 137 and strontium 90. The earth in the vicinity of these containers was contaminated. Eighteen 55 gallon drums of contaminated dirt were removed.

On 19 July 1971, a back-hoe was used to trench the area to be sure all radioactive material had been recovered from the site. By 23 July, the trenching was completed. On 27 July, a bulldozer filled in the trenches. A health physics survey of the area failed to reveal significant surface contamination remaining. The fence around the area was removed and the area closed out.

The recovered material will be disposed of in accordance with AR 755-15. A copy of this report will be on file in the Chemical School library and one will be retained by the Health Physics Division.

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

REFERENCE OR OFFICE SYMBOL	SUBJECT
ATSCM-H	Memo for Record - Iron Mountain Burial Site

TO | FROM C, Health Physics Div | DATE 22 Feb 1971 | CMT 1

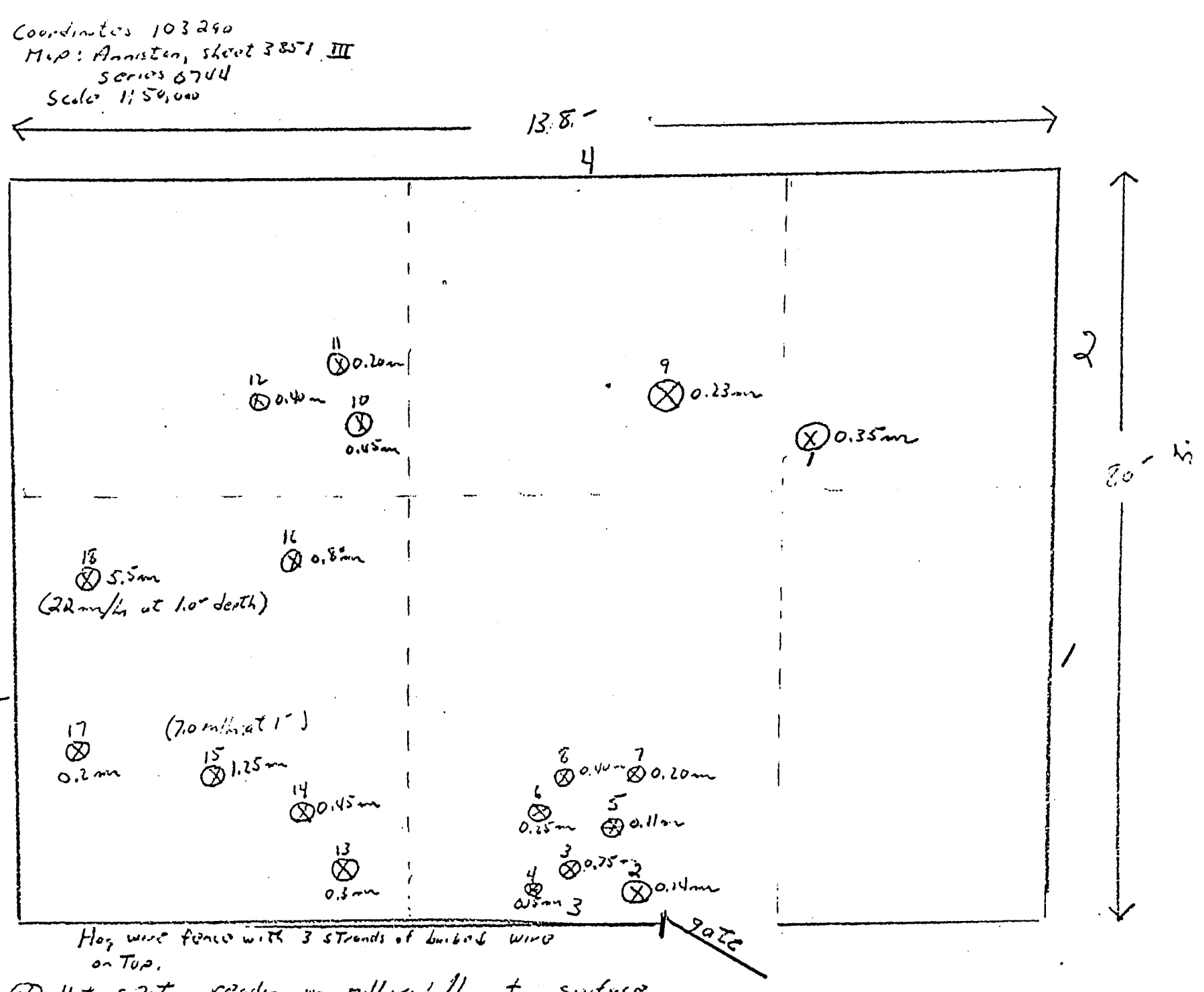
1. This memo is to document the events surrounding the discovery of the Iron Mountain (Rattlesnake Gulch) radioactive material burial site. The location of this site is: Coordinates 103290, ref: Map - Anniston, sheet 3851 III, series V744, scale 1:50,000.

2. On 18 February 1971, SFC Pryor, SSG Truffa, and myself, decided to check an area for possible radiological contamination. This survey was undertaken due to rumors about an old burial grounds and also due to some references to this area on some old dosimetry records in the Health Physics Division files. No other records pertaining to this area could be found anywhere at the Chemical School. The general location of the area in question was thought to be in a gully behind the biological field sampling area off Summerall Gate Road. After surveying a sizable portion of the area, I finally found the area in question. It is on the side of a mountain, not in a gulch. The area is about 140 feet long and 80 feet wide. It is enclosed with a hog wire fence topped with 3 strands of barbed wire. There is a gate in the fence and radiation warning signs located every fifty feet along the fence. Inside this fence, there is another fence made of barbed wire. A quick survey of the area revealed at least six (6) hot spots with the highest reading being 5 mr/hr. Upon returning to the Chemical School, I informed LTC Habermehl of this event. He said he would pass the information on to the Asst Commandant, Col Startt. As far as guidance as to what action should be taken, I was instructed to retain this information within the Health Physics Division for the time being.

3. On 19 Feb 71, members of the Health Physics Division returned to the Iron Mountai site to make a detailed survey of the area. The equipment used included two AN/PDR 7 two E-510s, one AN/PDR-60, plastic bags, tape, tongs, shovels, and a film badge and dosimeter for everyone. The area was divided into six sections for the survey. A total of 18 hot spots were found on the surface of the ground. The highest reading was 5.5 mr/hr. At this spot a hole was dug to a depth of about one (1) foot. The reading at about the six (6) inch level was 22 mr/hr and then decreaded as the hole was made deeper. Numerous samples were taken throughout the area. These included soil, leaves, and bark from the trees in the area. Samples were also taken from the area outside the fence. Most of the samples were hot, however we did not get a sample that was hot enough for use in the single channel analizer. We suspect that the radioactive material in the area is cobalt 60 or cesium 137. These results were reported to LTC Habermehl, DOI, who in turn was to inform the Asst Commandant. He said that no decision had been made as of yet as to what to do about this area. Health Physics Division personnel are going to make another survey of the area. This will entail digging numerous holes to insure that no large containers of radioactive material are buried in the area.

Raymond L. Anderson

RAYMOND L. ANDERSON
Major, CmlC
C, Health Physics Div


Coordinates 103240
Map: Anniston, sheet 3851 III
series 0714
Scale 1:50,000
13.8'
4
6
5
2
1
20'-5"
11 0.20mm
12 0.40mm
10 0.45mm
9 0.23mm
1 0.35mm
16 0.8mm
18 5.5mm
(22 mm/hr at 1.0" depth)
17 0.2mm
(7.0 mm/hr at 1")
15 1.25mm
14 0.45mm
13 0.3mm
8 0.40mm
7 0.20mm
6 0.65mm
5 0.11mm
3 0.75mm
4 0.5mm
2 0.14mm
3
Hog wire fence with 3 strands of barbed wire on Top.
gate
⊗ Hot spot, reading in millirad/hr at surface.

Health Physics Survey Worksheet

From Plutonium
~~(Alpha Field~~ Survey)

Survey # _____

Date 19 Feb 71

Wipe Number	Plate Number	Location	Gross Count	Background	Net Count	DPM	Microcuries
1	—	1	47	26	21	249	1.12×10^{-4}
3	—	3	58	26	32	379	1.71×10^{-4}
6	—	6	26	26	0	0	0
8	—	8	24	26	0	0	0
9	—	9	37	26	11	130	5.87×10^{-5}
10-1	—	10-1	36	26	10	118	5.34×10^{-5}
10-2	—	10-2	32	26	6	71	3.20×10^{-5}
16-1	-	16-1	52	26	26	308	1.39×10^{-4}
16-2	-	16-2	33	26	7	83	3.73×10^{-5}
16-3	-	16-3	52	26	26	308	1.39×10^{-4}
16-4	—	16-4	52	26	26	308	1.39×10^{-4}
18-1	—	18-1 ~~16-4~~	34	26	8	95	4.26×10^{-5}
18-2	—	16-2	68	26	42	498	2.23×10^{-4}
18-3	—	18-3	52	26	26	308	1.39×10^{-4}
18-1-1		18-1-1	240	26	214	2525	1.82×10^{-3}
18-1-2		18-1-2	116	26	90	1068	4.8×10^{-4}

Ft McCl Fm 441-R
(20 Nov 70)

Performed by: RZL

Health Physics Survey Worksheet

Survey #_____

Fren Monitor

(~~Alpha Field~~ Survey)

Date _____

Wipe Number	Plate Number	Location	Gross Count	Background	Net Count	DPM	Microcuries
18-1-3		18-1-3	124	26	98	1163	5.23×10^{-4}
15-1	(1 ft depth)	15-1	38	26	12	142	6.41×10^{-5}
15-2	(2 in depth)	15-2	35	26	9	106.8	4.80×10^{-5}
15-3	(2 in depth)	15-3	36	26	10	118	5.34×10^{-5}
15-4	(2 in depth)	15-4	40	26	14	165	7.47×10^{-5}
15-5	(2 in depth)	15-5	56	26	30	355	1.60×10^{-4}

Performed by: R2a

Ft McCl Fm 441-R
(20 May 70)

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

REFERENCE OR OFFICE SYMBOL	SUBJECT
ATSCM-H	Iron Mountain Site - Memo for Record

TO Record File FROM DATE 23 Feb 71 CMT 1

In an effort to find individuals who had knowledge of the Iron Mountain Burial site and specifically what activities occurred there, a Mr. Philip W. La Vie was contacted by phone. He had formally worked in the Health Physics Division during the late 1 50s and early 60s. He is presently employed at the Norfolk Naval Shipyard (phone # 461-0111 ext 5886). The information recieved from Mr. La Vie reveals that this area was used in past times as a radiological training area. A Hot Cell had even been constructed out there. It was made of sand bags and a bromine window and utilized steel rods as manipulators. A burial grounds was established to dispose of waste from the radiological laboratories. Items were put in bleach can and buried at a depth of 6 to 8 feet. Materials buried included Co 60, thalium, radium 226, plus others he could not remember. In XXX 1 60 upon returning to the Health Physics Div after an overseas tour of duty, Mr. La Vie inquired as to what ever became of Rattlesnake Gulch (Iron Mountain.) He was told by the Health Physics Officer a Major Corky Colgin, that the radioactive material buried there had been partially removed, Mr. La Vie got the impression that the subject of this area was not to be discussed and the whole subject was treated as a "hot potato".

A report was recieved from Mr. Corky Colgin via his wife who is employed at the USACMLCS. The report was not very useful. It consisted of confirmation that the area had been used for radiological activities but no details were provided. After XX confiring with Col Ladson, Commandant of the USACMLCS, he made the decision that whatever material was still at the burial site should be recovered, packaged properly, and shipped out of Fort McClellan for burial. HPD was given this task and given the instructions to handle it in a discrete manner.

In order to get information as to what might be buried at the site, I wrote a letter to LTC Powell, then stationed in Korea, requesting any information he might have concerning this matter. He had been assigned to the Radiological Division during the time the activities in question were occurring.

Raymond L. Anderson

RAYMOND L. ANDERSON
Major, CmlC
C, Health Physics Div

8.

DA FORM 1 FEB 62 2496 REPLACES OD FORM 96, EXISTING SUPPLIES OF WHICH WILL BE ISSUED AND USED UNTIL 1 FEB 63 UNLESS SOONER EXHAUSTED.

☆ GPO : 1970 O - 397-410

Pardon the [illegible] d written note, [illegible] typing assistan[illegible] is at a premium over here. If you can't read th[illegible] all I am sure Alice Noll or Ed Bradley can transc[illegible]

LTC William G. Powell
Cml Br ASN Div G3
HQ Eighth US Army
APO 96301
6 March 1971

Dear Maj Anderson

The Rattlesnake Gulch area south of Summerall Gate road was in use as a training area in 1954 when I first became acquainted with it. From your description the fence seperating it from the bio training area on the east and another train area to the west you have it pretty well pegged. The area had about a dozen pipe type source wells with 0.5-2 curies of cobalt-60 when I was there Col Carrol Tells me that before 1954 there were some pigs used with strings to suspend sources from a pulley above them.

There was a radioactive waste burial point near the top of th[illegible]

hill about where you have the dot on your map 103290. From what I was told and from what I put in there myself the waste consisted of: a. towels, gloves and other laboratory junk from the scaler lab. b. tantalum-(?) with a half life in the order of 100 days. The Tantalum was purchased around 1952 for a field decon test but couldn't be used because there was no way to pick it up again after one dropped out the pellets from the bubble gum type dispenser shield. Therefore this stuff sat around and disentegrated (pellet to powder) and decayed. In about 1953-54 We cleaned out the pig and put the residual tantalum in a bleach can and buried it in this area about 6' down. c. There may be some cobalt-60 waste from encapsulating operations buried in this area but I do not recall ever putting any there.

Bleach cans were the container for all waste put in the area whil I was there. This area had its own little barb wire fence and was so marked as a waste burial point. The Engineers post hole digger was frequently used to dig our holes.

Another activity took place in this area was cobalt encapsula. This was done I would gues in the vicinity of 102 295, or abo one quarter of the way up the hill on the center road (which you probably cant find now) and to the east near the bio area fence. Th hot cell consisted of cement block many sand bags, 2' thick water wind etc. This area is probably still identifiable from the sand bag residue, this area should be clea

The waste disposal area (and all sources ... I was told was moved to the pelham ...

Ridout field area about 1959 an
then a few years later the
whole mess was dug up and
moved to Oak Ridge for burial
in an AEC burial pit. If these
hot spots are located relatively close
together 10-20' in the area indicat
I would suspect that you have
the old burial ground. If you
dig and find bleach cans the
the burial ground was not
moved, at least not totally. If th
area in nearer Summerall gate
road as the old hot cell was the
nothing is barried but you may be
finding some contamination that
was missed in that clean up.
In either case you should no
encounter very high dose rates
unless there was some cobalt-6
scrap (ruptured capsules 5/8" x 3" put
in there around '58-'59.

Considering the 10 yr elapsed
and the isotopes concerned Co
Sr 90 Cs 137 and perhaps [illegible]
is probably your isotope. Sr 90
was used in lab but in [illegible]

quantities. There were some leaking Cs 137 capsules encounter in this time frame but this doesnt seem likely either. I would guess on what you would find I would expect that some Co-60 contamination will be found in the dirt of the old burial area, or the whole burial ground cans and all is still there. Happy digging.

At the moment I am finishing up my C&GS subcourse and have filed a letter of intent to attend Phase X at Lexington Ky on 13-26 Jun. I hope to take a couple weeks leave at this time and if you think I can be of any further help would be glad to come down for a day. [illegible] Truffa wrote [illegible] that he was leaving Conus on 26 [illegible] I have [illegible] looking for him - [illegible] he hasnt got here yet. I plan to assign him to my office to work in a team [illegible]

16 July 1971

Major Anderson briefed Col Ladson and Col Fair on the situation at Iron Mountain. Permission was requested from Col Ladson to use a ditch-digger at the site. This request was granted with the guidance that the operator of the equipment was to be a military man. After this, Major Anderson contacted LTC Bauer, CO, 2d Cml Bn about getting the necessary equipment and help. He in turn contacted LTC Warden the Post Engineer. In the afternoon, CPT Crawford, CO, Co.D, 83d Engineer Bn, arrived at the Health Physics Division to coordinate the necessary support. A Ford back-hoe would be used and SSGT Blackburn would be the operator. Col Ladson was again contacted and informed of the arrangements. He immediately notified Col Hines, Deputy Post Commander of what action was being taken. After this, the final approval to proceed was given.

23 July 1971

The back-hoe from the Engineer Company started to work at the site today. A power saw was used to remove trees that were hindering the digging. The area is to be trenched with trenches 5 to 6 feet deep and about 6 feet apart. Health Physics Division personnel were to be on hand during the digging to monitor the area and recover any objects dug up. On 20 July, a trench between points 15 and 7 yielded an old actuator assembly. It was the type with a pulley on top. A large area was dug up between points 15 and 16. About a dozen concrete blocks were dug up and a large quantity of sandy soil that was different from the surrounding soil. It is thought that this material might have been used in the walls of a hot cell that was reportedly constructed in this area. The sand and surrounding soil was slightly contaminated with radioactive material. The radiation intensity was around 1 mr/hr. This was the only contamination uncovered during this week of digging. On 23 July, the digging was completed. On 27 July, Post Engineers provided a bulldozer to back-fill the trenches. Once the area was recovered, a health physics survey was conducted. No contamination was found on the surface. The fence surrounding this area was then removed by the dozer and buried.

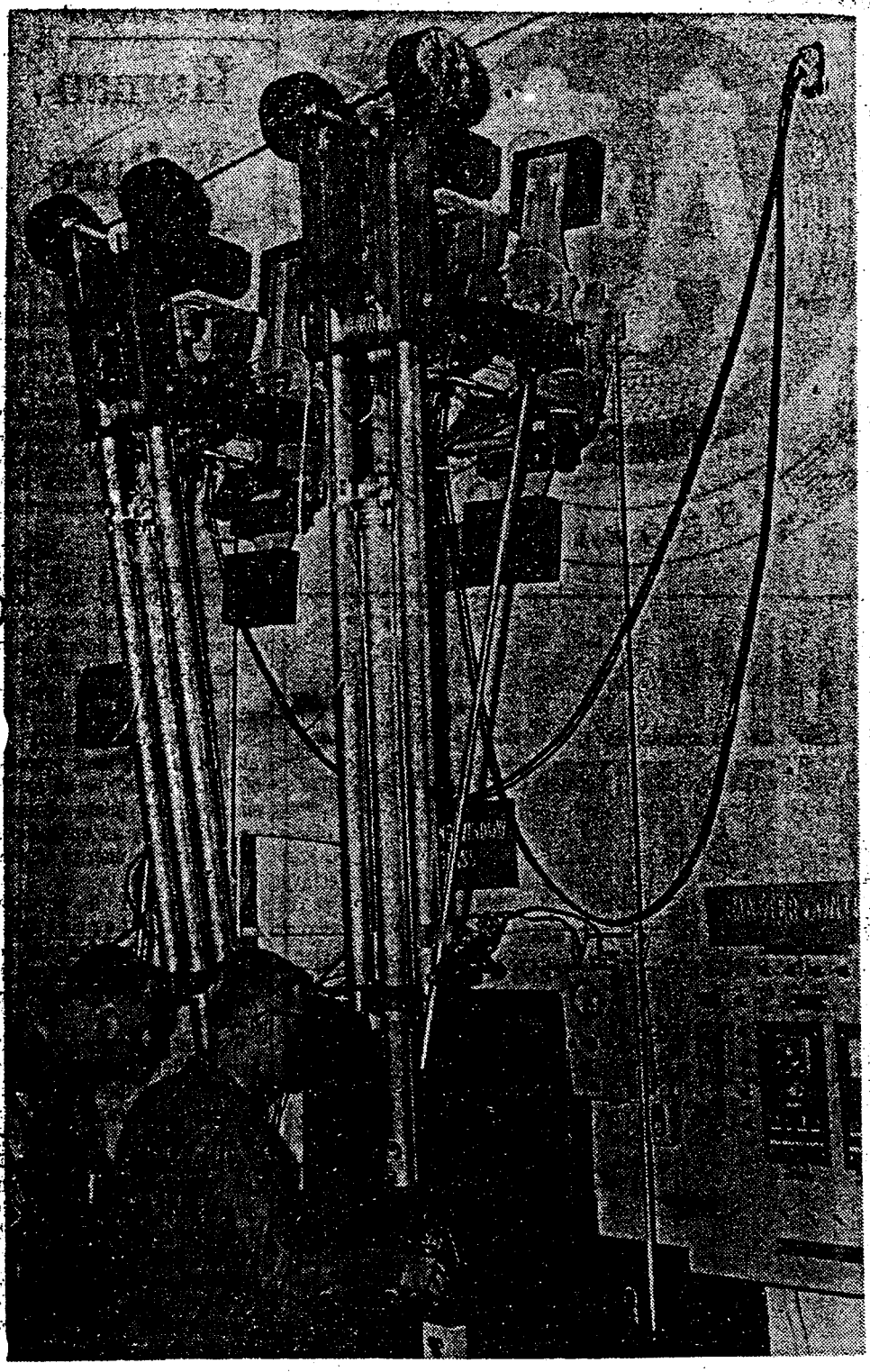
A total of 18 drums of low level contaminated dirt was removed from the burial site. In addition, three bleach cans full of lab waste and two lead containers containers filled with radioactive material were recovered. This material will be disposed of in accordance with AR755-15.

The bulldozer operator who filled in the trenches at the site, told SFC Pryor that he had worked in this same area 12 or 13 years ago. They had dug the area up and all the radioactive material they had recovered was taken to Rideout Field and placed in the burial grounds that are maintained there at the present time.

Anniston Star
1970 Article, Soldiers Train in Radiology at Rideout Field, 30 September 1970. Fisher Library, Fort McClellan, Alabama.

Ft McClellan

Soldiers Train In Radiology At



SP4 Ramanauska And Sgt. Truffa
. . . work behind 34-inch thick shielding

RIDEOUT FIELD — The Army probably won't like the analogy, but radiological detecting training at Rideout Field could be likened to a well-disciplined Boy Scout field trip.

At least it looked that way to a civilian observer.

RIDEOUT FIELD is where the free world sends soldiers it wants to train with the aid of live radiological sources.

It looks military.

Close - clipped perimeter roads circle the source area, and a high mesh fence encloses it.

Burned out tanks and jeeps

and ass
hardware
"Makes
realist
spokesman

FROM
perimeter,
machinery
foot paths
of a ro
metal tube

At one
a barn-lik
classroom
field train
cerned wi
tion.

And at
building is
control

Pelham Rang

Site For Fre

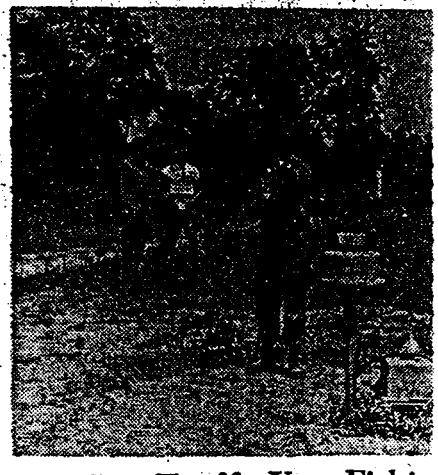
RIDEOUT FIELD — Hidden deep in the recesses of Pelham Range, Rideout Field is the free world's only radiological training field utilizing live radioactive sources.

It cost $1,180,000 to date.

It's not a very impressive

million do

IT LOO
dirt field,
of metal
of the gro
And tho
the smal
"sources"



Sgt. Truffa Uses Fish
. . . to rep

›logy At Rideout Field

JT FIELD — The bably won't like the but radiological training at Rideout ld be likened to a olined Boy Scout

t it looked that way ian observer.

UT FIELD is where world sends soldiers to train with the e radiological

s military.
clipped perimeter cle the source area, high mesh fence it.
l out tanks and jeeps and assorted military hardware litter the area.

"Makes it look more realistic," one army spokesman said.

FROM THE dusty perimeter, flanked by rusty machinery, freshly mowed foot paths lead to the edge of a roughly rectangular, metal tube studded section.

At one end is Rideout Hall, a barn-like structure used for classroom instruction prior to field training for troops concerned with detecting radiation.

And at one end of the building is a console panelled control room from which training teams are in constant radio contact, and the radioactive sources are controlled.

THE CONTROL room is "Painful Mind Hotel."

The training teams, armed with radiation detectors are, respectively, Painful Minds Alpha, Bravo, Charlie and Delta.

Roving jeep patrols scattered to keep troops from entering the field itself are "Foxtrot," and "Painful Mind Echo."

On a typical training trek, troops are hauled to Rideout Hall aboard a deuce-and-a-half, sit through a 30-minute refresher course, climb back into the truck and are dumped along the perimeter road.

Their instructions are to walk down their assigned path until prescribed "rad" readings are obtained.

THEN THEY walk back to the perimeter road, radio "Painful Mind Hotel" of their rusults and get back into the truck.

The training is quick and easy at the field.

Listen to a lecture, a brisk twenty-minute walk and head back to the water cooler at Rideout Hall.

SP4 Cornell
. . . in protective s

:lham Range Has Only Radiological
te For Free World Field Training

OU—ELD — Hidden n the recesses of Range, Rideout Field free world's only ical training field live radioactive

t $1,180,000 to date ot a very impressive million dollar project.

IT LOOKS like any other dirt field, with the exception of metal poles sticking out of the ground in neat rows.

And those poles — or rather the small cylindrical "sources" they contain — are what make the 1,414.4-acre field different from other 1,414.4-acre fields.

Inside the pole-like containers are radioactive "sources" of Cobalt 60, each measuring approximately one-half inch in diameter, and three inches in length.

Those "sources" emit gamma rays — radiation of pure energy waves that leaves no residue — and each, when new, had 10 curies of radiation.

COBALT 60's half-life — the period during which it loses one-half its radiation — is 5.3 years.

The source containers, about 70 inches in length, are buried in concrete to a depth of 40 inches.

One-thousand of them, according to Army spokesmen, are in the rectangular field, arranged in rown.

An air compressor atop each container can raise or lower the Cobalt 60 source, and is operated from a control console at one end of the field.

BY VARYING the height to which various sources are raised, the radiological intensity of the field can be controlled at all times, depending on how many actuators are raised, and different patterns can be created for student training.

Students, after formal classroom work, are taken to the field and are expected to detect the pattern of radioactivity.

They are instructed to turn back when their instruments approach the danger level, and even if they fail to detect the pattern's edge, a chain blocks entrance to any danger area.

THE EQUIPMENT used by the students, an army spokesman said, are calibrated to read 1,000 ti the actual amount of radi tivity being omitted.

"We take every conceiv safety precaution," radiology specialist said. haven't had an accident injury since 1962 when facility went into operatic

The field was granted Atomic Energy Commis license for operation in Initial construction and e ment cost $980,000.

RENOVATION AND re earlier this year came t additional $200,000.

In addition to the field i a smaller plot — proximately three-fou an acre — is planted alpha radiation emitt sources.

Sgt. Truffa Uses Fishing Pole
. . . to replace live source

Brief

1955 Brief. Chemical Corps School, Date 30 November 1954. Record Group 175, Boxes 1-10 Chemical Corps School, National Archives II, College Park, Maryland.

Reproduced at the National Archives

RG 175; U.S. Army Chemical Corps School

DECLASSIFIED
Authority NND 917652
By WRD NARA Date 4/6/11

Fort McClellan, Alabama
Chemical Corps
Secretary

23 November 1954

Fort Monroe, Virginia
Office, Chief of Army Field Forces

X

X

CHEMICAL CORPS SCHOOL

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BRIEF

CHEMICAL CORPS SCHOOL

FORT MCCLELLAN, ALABAMA

DATE

30 NOVEMBER 1954

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By WAD NARA Date 4/6/98

HISTORY

The Chemical Corps School had its informal beginning during the period following the first World War. After gas warfare became a reality in World War I, responsibility for chemical warfare activities was divided among five different agencies within the U. S. War Department. Training of troops in offensive employment of toxics was given at an Army Gas School located at Camp A.A. Humphries, Accontink, Virginia by the Corps of Engineers. The need for establishment of a single agency with responsibility for all aspects of Chemical Warfare was recognized by publication of a War Department General Order which established the Chemical Warfare Service effective 1 July 1918. This new service was made responsible for research, development, procurement, supply, and training of the entire Army in offensive and defensive aspects of gas warfare.

Chemical warfare training under the Chemical Warfare Service was first conducted at Camp Kendrick, New Jersey located adjacent to Lakehurst Proving Ground. Special Regulation No. 18 published in 1920 established The Chemical Warfare School at Lakehurst Proving Ground, Lakehurst, N. Y. Its objects were to give courses in instruction in chemical warfare to officers of the Chemical Warfare Service and such other officers as may be ordered to the school for instruction; to supervise such work in the above subjects as may be taken by officers of the Chemical Warfare Service at civilian educational institutions and commercial establishments when so authorized by the Director of the Chemical Warfare Service; to give instruction in the operations of the field service of the Chemical Warfare Service and such military training as may be found necessary. Two courses of instruction were to be given. A Regular Course of fourteen (14) weeks duration and special courses for line, staff, and reserve officers. The school was also to maintain a library which was to be open for the general use of personnel at the Lakehurst Proving Ground.

The Regular Course embraced every phase of Chemical Warfare with particular emphasis being given to offense methods and tactical uses of chemical warfare agents in the field. Instruction was also included in pertinent auxiliary subjects such as Meteorology, Intelligence, Reconnaissance, Map Reading, and Orders and Reports. Only one Regular Course of instruction was conducted at Lakehurst Proving Grounds. This course ended on 30 June 1920. The Chemical Warfare School was transferred on 20 September 1920 to Edgewood Arsenal, Edgewood, Maryland where it was operated by the Chemical Warfare Service as a Special Army Service School for the next thirty-one (31) years.

At Edgewood Arsenal, the first Regular Course of instruction given for officer students opened on 10 January 1921. There were twelve (12) students enrolled in the class, nine (9) of whom successfully completed the course. The school staff consisted of five (5) officers who conducted most of the instruction. Special instructors and guest lecturers were secured to supplement instruction given in manufacturing and technical chemical details of the course.

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Instruction was divided into three major departments. The Department of Technique of Chemical Warfare was concerned with the properties, manufacture, and physiological action of chemical warfare agents; the construction and manipulation of chemical warfare apparatus; and pertinent auxiliary subjects. The Department of Military Art was principally concerned with application of the agents and apparatus studied in the course. The Department of History and Research studied the origin of chemical warfare, its use in past wars, history of the Chemical Warfare Service, and new developments.

On 18 April 1921, the first course for non-commissioned officers was started. This was a three-weeks course in Chemical Warfare Weapons for enlisted personnel of the First Gas Regiment. Their instruction included Stokes Mortars, Livens Projectors, Toxic Cylinders, Hand and Rifle Grenades, Smoke and Toxic Smoke Candles and Gas Defense. Methods of handling, cleaning, and firing were emphasized together with drills in use of the various pieces.

The first year of operation of the school at Edgewood Arsenal saw several notable events take place. While the first Regular Course was in progress, a Signal Corps Meteorological Station was established to furnish weather data to the school and other agencies. A Chemical Warfare Museum was established to be used for instructional and historical purposes. It consisted of chemical warfare materiel of friendly as well as enemy origin and demonstrated the development of protective apparatus including current developmental masks and parts. A school library for use by instructors and students was also set up.

The first home of the school was in the Fort Hoyle area of Edgewood Arsenal. A barracks building of the First Gas Regiment was used as the school plant. Housed on the first floor were staff offices and the museum. Located on the second floor were a classroom, library, meteorological station, and supply room. Even at this early date, the need for larger quarters was felt. Plans were formulated and suggestions made for building a suitable structure specifically designed to meet the growing needs of the Chemical Warfare School.

Fiscal Year 1922 saw the beginning of instruction specifically designed for U. S. Navy and U. S. Marine Corps personnel. A special course for Navy Chief Petty Officers and Marine Corps non-commissioned officers was given from 15 May through 10 June 1922. Thirty-nine students earned certificates for completing the course. From this beginning there developed other specialized courses for Navy and Marine Corps personnel which led to a Navy Board Report in 1924 recommending that the Chemical Warfare School receive the support of Navy funds and instructional personnel to assist in accomplishment of the school mission. To this end, the organization of the school for the school year 1926-1927 incorporated a Department of Naval Instruction composed of one (1) Navy and three (3) U. S. Marine Corps Officer instructors. They assisted in the development and presentation of a Line and Staff Officers Course which emphasized "Defense Against Chemical Warfare".

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Fiscal Year 1922 also saw the beginning of school participation in the preparation of official training literature. Army Chemical Warfare Service Correspondence Courses known as the Red, White and Blue Courses and some Training Regulations on "Tactics for Special Gas Troops", "The Company (Gas)" "Defense Against Gas", and "Chemical Warfare by Air Service" were prepared and submitted. School Instructional material also was prepared for dissemination and a bulletin entitled "Chemical Warfare" was edited.

During the following Fiscal Year, 1923, the first specialized instruction was given for Medical Officers. This was a short course under the supervision of the Medical Research Division for which two days of the instruction was conducted at the school.

By the end of 1922, the school had outgrown its facilities in the Fort Hoyle area. In February 1923, its location was moved to Building 250 and the Museum, Meteorological Section and Duplicating Plant (which functioned for the Arsenal as well as the school) were moved to Building 249. The school remained in these buildings during the ensuing years.

Expansion and growth during the years preceding World War II brought with it many problems which materially affected the extent and effectiveness of the school in accomplishment of its mission. One of the most pressing problems was that of adequate personnel. In the early years emphasis was placed on securing Regular Army Officers for assignment to the school. This effort was abandoned in the years immediately prior to Work War II when many Reserve officers were assigned to the Staff and Faculty. Troops available for school support were those of the First Gas Regiment who were required to carry out normal training activities in addition to supporting demonstrations and field problems for the school. Additional instructors and especially instructor representatives of the Infantry and Field Artillery could not be secured. School personnel were called upon to support Post functions such as preparation of mobilization plans for Edgewood Arsenal, furnishing an Assistant Post Executive Officer, serving on various Boards, and performing printing and reproduction work for the Arsenal. Another problem involved transportation and training areas. Vehicles of the required type were neither authorized nor made available for student transportation to training areas which were inaccessible by ordinary transportation during inclement weather. Training areas were seriously overcrowded during the summer months. Furthermore, the school had to depend on the Arsenal for such transportation as could be provided. Quarters for housing both student and staff personnel were scarce and inadequate. The school plant itself was not large enough. There was a constant need for revision of school texts and a Basic Field Manual was needed for instruction of troops in the field. These and many other problems were faced by the school during the years between the wars.

During World War II and the years immediately preceding, the school reacted to the emergency by rapidly expanding to meet the need for training large numbers of officer and enlisted personnel. Its basic organization was expanded and there were added to it School Troops, and an Officer Candidate

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School which followed the general organizational pattern of the school. The number of classes conducted increased from thirty-six (36) officer and enlisted classes during school year 1940-41 to eighty-seven (87) such classes plus thirteen (13) Officer Candidate Classes during school year 1942.

In the years following World War II, the school has continued to fill a need for technically trained personnel other than officer candidates. The number of courses and students trained has been on a reduced scale from that of the war years but of a much larger extent than that of the pre-war years. One notable academic advancement in the post-war years has been the development of a nine-months Chemical Officer Advanced Course. The first such Advanced Course was given between September 1946 and June 1947 for a class of twenty-one (21) students. In September 1954, the Ninth Chemical Officer Advanced Class started with an enrollment of thrity-one (31) students. Another important post-war development was the elevation of the Chemical Warfare Service to the status of a Corps on 2 August 1946. The name of the school was changed accordingly to The Chemical Corps School.

Department of the Army General Order Number 17 dated 2 April 1951 established the Army Chemical Training Center, a class II installation to be locat at Fort McClellan, Alabama effective 9 April 1951. The Chemical Corps School was designated as an activity of the ACTC effective 15 August 1951. The scho as such, ceased operations at Army Chemical Center (formerly Edgewood Arsenal on 15 October 1951. The museum and printing plant were not moved to Fort McClellan.

From 15 August 1951 until 15 October 1954 the school was housed at Fort McClellan in a converted barracks building with laboratories, shops and personnel decontamination station in outlying buildings. Academic instructio began in September 1954. One of the first classes to receive regularly sched instruction was the Sixth Chemical Officer Advanced Class. Opening exercises were held on 17 September 1951 with General Leonard J. Creely as the principal speaker.

Soon after the school started operations at Fort McClellan, construction of a permanent school facility was started. This structure was made available for beneficial occupancy on 4 October 1954 and all offices and activities of the Chemical Corps School were moved to its permanent home thirty-four (34) years after its inception.

Responsibility for training enlisted replacement stream input personnel became an added responsibility of the school on 20 July 1953. Currently, the school conducts six courses of Advanced Individual Training for RSI personnel and thirteen officer and enlisted courses for other personnel. This is accomplished with an authorized strength of one hundred twenty (120) officers (including one Warrant Officer), fifty-nine (59) enlisted, and one hundred twenty-three (123) civilian employees.

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Chemical Corps School graduates from 1921 through October 1954 number twenty seven thousand thirty-four (27,034) officers of the U. S. Army, Navy and Marine Corps, two hundred twenty-one (221) officers from Allied Nations, one thousand three hundred nine (1,309) civilians, and twenty thousand four hundred eighty-two (20,482) enlisted personnel.

Fort McClellan, Alabama

2. GENERAL ORDERS ESTABLISHING UNIT: Section II - General Orders No. Department of the Army dated 2 August 1951

3. ORGANIZATIONAL STATUS:

The Chemical Corps School is a Class II activity of the Chemical Corps Training Command, with station at Fort McClellan, Alabama.

4. MISSION:

a. The mission of the Chemical Corps School is to provide resident and non-resident education and training to the following:

(1) Officers, warrant officers, and enlisted men of the Chemical Corps (regular and reserve components) in the command and staff functions of the Corps.

(2) Officers, warrant officers, enlisted men, and selected civilian employees of the Armed Forces in chemical, biological, and radiological warfare.

b. Additional missions accomplished by the School include the development of new and revision of existing doctrine; the preparation and revision of Department of the Army, Chemical Corps and Chemical Corps School publications on appropriate technical and military subjects; and any special studies or support activities assigned by competent authority.

5. ADMINISTRATION:

Table of Distribution Number 03-9770-G is assigned; Technical Service Unit 9779.

Chemical Corps School
1955 Lesson Summary Sheet, CBR Tactical Training Exercise, 12 January 1955. Record Group 175, Box 45, General Correspondence, Miscellaneous Series, 1955-59. National Archives II, College Park, Maryland.

I E NO. 3025/C/PE-U
3-0-5, 3-E-2

THE CHEMICAL CORPS SCHOOL
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

12 Jan 55

LESSON SUMMARY SHEET

COURSE SEE FILE NUMBER

SUBCOURSE Operations, Training and Intelligence

SUBJECT CBR Tactical Training Exercise

LENGTH OF PERIOD Four Hours

TRAINING AIDS "Special Map Toxic Gas Area", Morrisville Maneuver Area, Scale 1:12,500, Venetian Blind Strips 4.6-67; Chart, "Pelham Range Training Area" 4.6-68.

METHODS OF PRESENTATION Conference and Practical Exercise

DESCRIPTION OF PERIOD

a. Objectives.
(1) To provide the student with the necessary requirements for the preparation of a tactical training exercise.
(2) To give practical experience in the actual preparation of a tactical training exercise in which the integration of CBR situations is emphasized.

b. Procedures.
Review of previous instruction. A discussion and explanation of the requirements by the instructor. Preparation of the exercise and presentation by students, followed by a critique.

c. Sequence.
This is the 16th period in a series of 18 periods covering 41 hours in this subcourse on Operations, Training and Intelligence for CBR Officer and Enlisted Courses. This exercise follows 3020 or 3005 and precedes 3906, and permits the student to apply the methods and techniques of integrating CBR situations into regular unit training.

352.11 Call School

REFERENCES
a. For the Student
(1) Scan All previous on Operations, Training and Intelligence.
(2) Review All previous on Operations, Training and Intelligence.

REMARKS Issue Sections I and II on call from instructor. This Lesson Plan includes 3025.1, Section I, Requirement w/annex, 3025.2, Section II, Solution, Special Map Toxic Gas Area, Morrisville Maneuver Area, Venetian Blind Strip 4.6-67, Chart 4.6-68, Pelham Range Tng Area.

APPROVED BY ASST. COMDT.

DATE 12 January 1955

1. Station No. 1.

Platoon assembles at foot of hill just in from the entrance to the course. Platoon is briefed by the instructor in charge. Platoon is to advance along the lane (open ground to the front of the platoon) and secure a wooded objective at a distance of about 400 yards. On a signal from the platoon leader the unit advances to the objective. It is fired upon by machine guns (simulated) and finds itself in an artillery barrage (aerial bursts and demolitions charges). CN-DM grenades may be used to force masking by the men. As platoon reaches the edge of the woods, the firing ceases, or becomes sporadic from the far edge of the woods.

As the platoon reorganizes to continue the advance, it will come under CN-DM attack, controlled from tower No. 2. When platoon is ready, it continues the attack, finding an abandoned enemy position dug in at the edge of the woods.

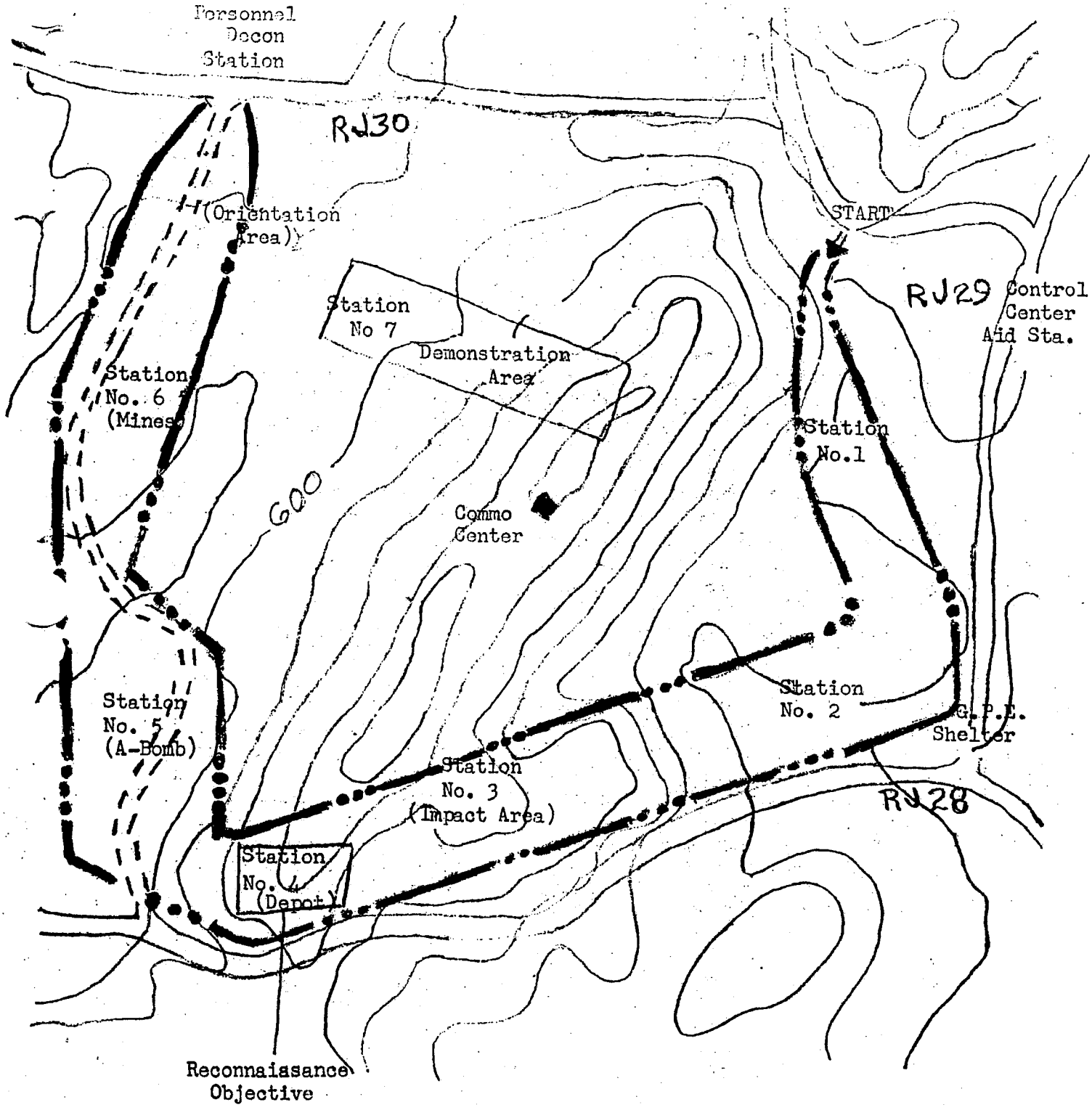
The platoon leader completes his reorganization, assigning men to check for presence of gas, others to act as sentinels. There will be signs in the area in Aggressor language which direct the platoon along the course to a protective shelter in the hillside about 200 yards away from the edge of the woods. Sign reads ABRIGO PROTECTOR.

2. Station No. 2. - Preparation and occupation of a Protective Shelter.

The platoon leaves the woods and advances across the open ground in the direction of the course. As it enters the woods again, the platoon finds the abandoned protective shelter. Signs in the vicinity are in Aggressor language. Platoons should investigate the shelter and make it operable, at the same time determining the capacity and length of stay. Booby traps are attached to the door so as to detonate when the door is pushed open. While platoon is investigating the shelter, concealed Special Troops personnel simulate an artillery gas attack using CN-DM grenades and simulator shell bursts. Platoon leader should take his group into the shelter, leaving a sentinel posted outside with proper instructions.

3. Station No. 3. - Advance through impact area, investigation of abandoned Aggressor storage area.

Following the attack at station No. 2, the platoon continues along the wooded lane. It will first come upon the impact area with several Aggressor chemical shell (duds) which should be investigated and reported on proper forms; report covers marking, caliber, location, etc. Shell simulators, aerial bursts, simulated MG fire will be used by operating personnel. Tubes of chloropicrine and phosgene will be detonated up-wind of group.



SKETCH MAP OF PATROL ROUTE

3025.2

4. Station No. 4. - Investigation of Abandoned Aggressor Installation.

As the platoon continues its advance, it discovers what appears to be an abandoned CP area. Signs in aggressor language are in the area. Various items of Aggressor protective equipment are in in the area. Buildings or tents used to represent the CP are booby trapped. Intermittent shelling occurs in the area as the platoon advances through the impact area and into the CP area; PS (chloropicrin) is released in conjunction with the shell simulators.

5. Station No. 5. - Monitoring of RW Hazard (Atomic Bomb Crater).

As platoon leaves the CP area, it will come upon signs in Aggressor language which read PERIGO, RADIAZIONE. These signs will be placed about the edge of a large crater which represents an A-Bomb crater. As the platoon approaches the crater, instruments will indicate that radiation is present. (Instruments should be given to the platoon as they leave the CP area to avoid excessive damage). Platoon leader takes appropriate steps to moniter the area, reports the extent of the hazard, and the location of the crater, time of monitoring, etc.

6. Station No. 6. - Passage through contaminated area (Mustard)

Platoon encounters an Aggressor minefield as it continues along the road from the crater. A prima cord rope is detonated as the patrol approaches; mines are already detonated. The platoon leader should make his reconnaissance of the area and decide where and how to cross the area. Mines will contain MR, but mustard will be located on the ground throughout the area to present a hazard. AP mines (simulated) are scattered through the area to impede the platoon's progress across the minefield. At the far edge of the minefield are signs in Aggressor language which warn of the minefield. A shufflebox or pit filled with dry mix is located at the far edge of the area to allow decontamination of shoes.

7. Station No. 7. - Role of Smoke and Flame in the Attack of a Fortified Position (Demonstration by Special Troops Personnel).

Upon arrival at Pelham Range, the students are moved to the bleachers in vicinity of RJ 30, for the purpose of observing the attack of a fortified position by Special Troops Personnel.

The instructor in charge will orient the students on this demonstration as provided in Annex VI of this lesson plan.

The demonstration consists of an infantry squad, reinforced with smoke, flame and demolitions, which attacks a bunker located about 500 yards to the students front.

Prior to the squad's attack the bunker is isolated from its supporting troops and fortifications by smoke, and direct fire weapons, i.e.: recoilless rifles and tanks, are used to "button up" the bunker. Under cover of this supporting fire the squad moves to its assault position about 50 yds to the front of the bunker. Two flame throwers saturate the bunker with flame and a demolition man completes the destruction of the position with a satchel charge. The squad then moves to the crest of the hill and digs in against a possible counterattack.

After this demonstration the instructor in charge will brief the students on the field familiarization course as provided in Annex VII to this lesson plan.

B. Munitions and Equipment Requirement.

1. Control Group.

a. Control Center.

(1) First Aid Station.
(2) Decon Truck or Indian Fire Extinguishers.
(3) Telephone.
(4) Orientation map and easel.
(5) Field Tables and Chairs.

b. Communications Center.

(1) Switchboard.
(2) Field Table and Chairs.
(3) Maintenance supplies.

c. Decontamination Center.

(1) Decon truck (may be same as in a,(2), above).
(2) Boxes or bins for collecting protective clothing (if changed).
(3) Soap, towels.

2. Operational Stations (per Patrol).

a. Station No. 1.

8 blocks	Nitrostarch (1/2 lb blocks)
20 ea	Caps, blasting
6 ea	Simulators, shell-burst, ground 20 X (commercial)
50 ea	Ctg Cal 30 blank, MLB
2 ea	Demolitions switchboards, with power source
2 ea	Machine, blasting
2 ea	Telephones, field, TA-43
5 ea	Gren, hand irritatn CN-DM

b. Station No. 2.

2 ea	Simulator, booby trap, flash
6 ea	Simulator, shell-burst ground, 20 X w/whistle
5 ea	Grenade, hand, irritant, CN-DM
1 ea	Telephone, field, TA-43

c. Station No. 3.

2 ea	Caps, blasting, electric, No. 8
2 ea	Simulator, booby-trap, flash
6 ea	Simulator, shell-burst, ground, w/whistle 20 X power
8 ea	Chemical shell, various sizes, Aggressor markings
1 ea	Machine, blasting
10 lb	Gas Phosgene, CG

d. Station No. 4.

2 ea	Caps, blasting
6 ea	Simulators, shell-burst w/whistle, 20 power
2 ea	Simulator, booby-trap, flash M117
10 lb	Gas chlorine, CL
1 ea	Telephone, TA-43
1 ea	Machine, blasting
2 ea	Tent, small wall

Various Foreign protective equipment, tech intell documents, etc.

e. Station No. 5.

5 or 6	Radioactive sources
1 ea	Telephone, field, TA-43
2 ea	RADIAC instruments, (issue at control point).

f. Station No. 6.

100 ft	Cord, detonating
2 ea	Caps, blasting, electric
1 ea	Blasting machine
1 ea	Shufflebox
1 ea	Telephone, TA-43
132 lb	Gas, Mustard, HD (for entire exercise)

g. Station No. 7 (for one demonstration - each exercise)

12 ea	Grenades, hand, smoke, WP, M-15
12 ea	Grenades, hand, smoke HC
8 ea	Nitrostarch, 1/2 lb blocks
2 ea	Flame throwers, portable, M2
30 ea	Caps, blasting, electric
4 ea	Pots, smoke, HC, M5
400 ea	Ctg blank in clips
1000 ea	Ctg blank in belts
2 ea	Telephones, TA-43
2 ea	Demolitions switchboards, with power source
1 ea	MG, w/blank adapter
15 ea	Simulator shell burst ground
1000 ea	Cord detonating Petn

Craig, P. **(Appendix D-Licenses Listing)**
1971 Interagency Agreement for Plutonium No. 3039. U.S. Army Chemical School, Fort McClellan, Alabama.

UNITED STATES ATOMIC ENERGY COMMISSION

INTERAGENCY AGREEMENT FOR PLUTONIUM

AGREEMENT NO. 3039

THIS INTERAGENCY AGREEMENT FOR PLUTONIUM (sometimes referred to as the "Agreement"), entered into this 1st day of January, 1971, by and between the UNITED STATES ATOMIC ENERGY COMMISSION (hereinafter called the "Commission") and U. S. ARMY CHEMICAL CENTER AND SCHOOL (hereinafter called "Agency"), an executive department or independent establishment of the Government of the United States of America or a bureau or office thereof;

WHEREAS, the parties hereto desire to establish the terms and conditions applicable to the distribution of plutonium to the agency, pursuant to the Atomic Energy Act of 1954, as amended, whether ordered and received directly from a Commission facility or transferred from a lessee of the Commission;

NOW, THEREFORE, the parties hereto do mutually agree as follows:

ARTICLE I - DEFINITIONS

A. The term "Act" means the Atomic Energy Act of 1954, as amended.

B. The term "base charges" means the dollar amount per unit of plutonium in standard form and specification in effect as of the time any particular transaction under this Agreement takes place, as set forth in schedules published by the Commission in the Federal Register from time to time.

C. The term "blending" means the altering of the isotopic composition of a quantity of an element by means other than through the irradiation of material in a nuclear reactor.

D. The term "Commission" means the United States Atomic Energy Commission or any duly authorized representative thereof.

E. The term "Commission facility" means a laboratory, plant, office, or other establishment operated by or on behalf of the Commission.

F. The term "Commission's established specifications" means the specifications for purity and other physical or chemical properties of plutonium, as published by the Commission in the Federal Register from time to time.

40-109

G. The terms "consumed" or "consumption" mean the destruction, burnup, loss or disposition of material in such manner that it cannot be economically recovered for further use, material unaccounted for, or changes in the composition of material due to blending of different assays of material or other alteration of the isotopic ratio resulting in the reduction in value of such material.

H. The term "established Commission pricing policy" means any applicable price or charge in effect at the time any particular transaction under this Agreement takes place (i) published by the Commission in the Federal Register, or (ii) in the absence of such a published figure, determined in accordance with the Commission's Pricing Policies. A statement of such Pricing Policies will be furnished Agency upon request. The Commission's published prices and charges, as well as its Pricing Policies, may be amended from time to time.

I. The term "lessee" means a person who is a party to a Special Nuclear Material Lease Agreement or Plutonium Lease Agreement with the Atomic Energy Commission. For the purposes of this Agreement, the term "lessee" also includes another Government agency which has executed an Interagency Agreement for Plutonium with the Commission.

J. The term "persons acting on behalf of the Commission" means employees and contractors of the Commission, and employees of such contractors, who implement or participate in the implementing of this Agreement pursuant to their employment or their contracts with the Commission.

K. The term "standard form" means the chemical form of plutonium, as published by the Commission in the Federal Register from time to time.

L. The term "value" means the dollar amount determined by multiplying the applicable base charge by the number of units, or fractions thereof, of plutonium involved, whether or not such material is in standard form or meets the Commission's established specifications.

ARTICLE II - SCOPE

A. Unless otherwise provided herein, or in a written agreement between the Commission and Agency, the terms and conditions contained herein shall apply to plutonium, hereinafter sometimes referred to as "material" and related services furnished to Agency by the Commission on and after the date of execution of this Agreement, and to the material, if any, subject to the Special Nuclear Material Interagency Agreement between the Commission and Agency, as of midnight, December 31, 1970, whether ordered and received directly from a Commission facility or obtained from another lessee of the Commission. Nothing herein shall be deemed to prevent Agency from shipping material covered by this Agreement to any person duly authorized by the Commission to process and use such material. Agency may be relieved of its obligations under this Agreement for such material only in accordance with the terms of this Agreement. Material received by Agency from any source shall be subject to the provisions of this Agreement only if such material is furnished pursuant to an order accepted by the Commission as provided in paragraphs B. and C. below.

B. Agency shall order material pursuant to this Agreement through the execution and submission of a plutonium order form prescribed by the Commission.

C. Acceptance of Agency's order for material by or on behalf of the Commission shall constitute the Commission's commitment to furnish the material specified in such order subject to the terms of this Agreement. When Agency orders material which is to be obtained from a lessee, this Agreement shall not be applicable to such material until such lessee and the Commission have agreed to the transfer of such material to Agency.

D. Nothing herein shall be deemed to obligate Agency to order material or to obligate the Commission to furnish material to Agency, or to provide services for Agency with respect to material.

ARTICLE III - TERM OF AGREEMENT, TERMINATION AND CANCELLATION

A. Except as otherwise provided herein, Agency shall have the right to possess and use the material covered by this Agreement until June 30, 1973; provided that material subject to this Agreement furnished to or received by Agency after December 31, 1970, shall not, unless otherwise authorized in writing by the Commission, be used in the course of activities under a license issued pursuant to Section 103 or 104b. of the Act.

B. Agency may cancel any order for material under this Agreement by notice in writing to the Commission at any time prior to delivery of the material; provided, Agency shall reimburse the Commission for the costs incurred by the Commission in connection with such order, as determined in accordance with established Commission pricing policy in effect at the time such costs are incurred.

C. The Commission may terminate or suspend in whole or in part this Agreement at no cost to the Commission at any time, by written notice to Agency in the event that (i) the right of Agency to possess material subject to this Agreement expires or is suspended or terminated by any authority having power to take such action, or (ii) Agency shall fail to perform its obligations hereunder and shall fail to take corrective action within 30 days of the date of the written notice of such failure to perform as provided above, unless such failure arises out of causes beyond the control and without the fault or negligence of Agency.

ARTICLE IV - MATERIAL TO BE FURNISHED BY THE COMMISSION

A. Except as otherwise agreed to in writing by the Commission and Agency, plutonium subject to this Agreement shall be furnished to Agency in standard form in accordance with the Commission's established specifications.

B. Agency shall pay the Commission's service charges, if any, for withdrawal and packaging, and for any other special service rendered pursuant to Agency's order. Unless such charge or charges are agreed to in the order executed by Agency and the Commission for material, Agency shall pay the Commission its charges for the services rendered pursuant to Agency's order as determined in accordance with established Commission pricing policy in effect at the time such services are rendered. Agency shall also pay the value of material consumed in the rendering of such special services.

C. If the material delivered by the Commission pursuant to an order executed by Agency and the Commission does not conform to the Commission's established specifications (or to the specifications set forth in an order executed by Agency and the Commission), the responsibility and liability of the Commission and persons acting on behalf of the Commission shall be limited solely to correcting such discrepancies by delivery of material which does conform to the applicable specifications. Neither the Commission nor persons acting on its behalf shall have any responsibility or liability for replacing or furnishing material which Agency obtains directly from a lessee of the Commission. The Commission will pay to the carrier the transportation charges for returning any material obtained directly from the Commission which does not conform to applicable specifications, as well as the transportation charges for shipping conforming replacement material. No service charges will be made with respect to such replacement material, and rental charges for Commission-owned containers in which such material shall be shipped will not commence until 30 days after date of shipment.

D. 1. The Commission, upon delivery to Agency of plutonium, subject to this Agreement, may direct that such plutonium not be blended with other plutonium.

2. In the case of blending of plutonium subject to this Agreement with privately owned plutonium, Agency agrees either (i) to secure the Commission's written agreement in advance as to the terms and conditions under which such material may be blended or (ii) to accept as conclusive and binding the Commission's determination in writing as to the consequences of any such blending including the disposition of any blended product and amounts due the Commission and Agency.

3. It is hereby agreed that Agency shall be responsible for handling any claims of third parties on account of rights alleged in or in connection with the plutonium used in blending.

E. 1. Agency shall maintain and make available to the Commission for examination, upon reasonable notice, complete and adequate records pertaining to its receipt, possession, use, location, movement, and physical inventories of material subject to this Agreement. Such records shall fully reflect physical measurements, consumption, actual inventories, and the transactions relating thereto. Agency will submit such transfer documents and reports reflecting quantities of material received, physically present, consumed and transferred, with respect to material subject to this Agreement as the Commission may prescribe. Agency will make at least one physical inventory of material subject to this Agreement and in the custody of Agency during each twelve months' period of the Agreement and will insure that such inventories are also made of material subject to this Agreement but in the custody of others.

2. Agency shall afford to the Commission, at all reasonable times, opportunity to inspect the material subject to this Agreement and the premises and facilities where such material is used or stored. Agency shall permit the Commission to perform such audit tests and inventory tests (which may include the taking of a reasonable number of samples for physical or chemical analyses but which does not include sampling and destructive testing of fabricated articles except as agreed to by Agency) as the Commission deems necessary for verification of the accuracy of any reports submitted by Agency to the Commission. The Commission agrees to perform any inventory tests with respect to material subject to this agreement so as to minimize interference to Agency's processing, delivery schedules, and third-party commitments regarding the material. Agency agrees that no charges for costs or value of any material samples, or for services or equipment, should such be furnished by Agency, provided in connection with the performance of audit tests and inventory tests, shall be made against the Commission; however, the Commission will allow full credit in Agency's account with the Commission for the value of the material included in the samples and the Commission will make no charge against Agency for reconversion of the material samples to standard form. In the event Agency should ship material subject to this Agreement to any other person, or cause such shipment of such material, Agency shall assure that the rights and privileges granted to the Commission under this paragraph shall not be affected by such shipment.

ARTICLE V - RETURN OF MATERIAL TO THE COMMISSION; SPECIAL CHARGES FOR COMMISSION SERVICES

A. Agency shall return all material subject to this agreement which has not been consumed upon the expiration or earlier termination of this Agreement, provided, however, that Agency shall have the right to return any such material at any time prior to such date.

B. Except as otherwise provided herein, material returned by Agency will be returned directly to the Commission in the standard form and in accordance with the Commission's established specifications for return of material in effect as of the date the material is returned.

C. Material subject to this Agreement transferred to a lessee of the Commission, regardless of the form or specification of such material, shall be deemed to have been returned to the Commission if such lessee, the Commission, and Agency have executed an order covering the material so transferred.

D. The Commission may at its sole discretion accept material in a form or specification other than as provided in B. above. In such cases, unless the Commission shall determine that acceptance of the material in its existing form is in the best interests of the Government, Agency shall pay a service charge for processing such returned material so as to enable it to meet the standard form and to satisfy the Commission's established specifications in effect at the time the material is returned. Such charge shall include the Commission's charge for processing, as determined in accordance with the established Commission pricing policy in effect at the time the material is returned and an amount as determined by the Commission, for the value of the material consumed during such processing.

E. All material returned directly to the Commission shall be delivered by Agency to the Commission facility or location specified by the Commission, f.o.b. commercial conveyance at such facility or location. Unless waived by the Commission, Agency shall give the Commission at least fifteen (15) days' written notice of intent to return material directly to the Commission. The Commission will notify Agency promptly after receipt of Agency's notice of intent to return material as to the Commission facility or location designated for return of the material. (Agency, at the time of shipment of material, shall notify the Commission facility or other location to which shipment is made of the date and method of shipment, and expected date of arrival.

ARTICLE VI - PAYMENT FOR MATERIAL CONSUMED

A. Except as otherwise provided herein, Agency shall be responsible for and shall reimburse the Commission for any consumption of material, whether or not such consumption is due to the fault or negligence of Agency or any other cause occurring from the time of delivery of such material to Agency and until such material has been returned to the Commission as provided herein.

B. Agency shall make reports to the Commission, on forms prescribed by the Commission, to accurately reflect all consumption of material as then known to Agency. In reporting material as consumed, Agency shall make reasonable effort to accurately fix the time of such consumption on the basis of a specific occurrence or in accordance with procedures and methods of calculating consumption accepted by the Commission.

C. Except as otherwise provided herein, the amount due the Commission for material consumed shall be the value of such material computed in accordance with this Agreement as of the time of such consumption. Agency may, and shall when required by the Commission, pay on a provisional basis for material consumed. Full custody to and responsibility for all consumed material shall be deemed transferred from the Commission to Agency upon final payment to the Commission of the amount due.

ARTICLE VII - OTHER AUTHORITY

Nothing in this Agreement shall be deemed to require Agency to pay the Commission's charges with respect to materials or services subject to this Agreement, or to observe other specific provisions of this Agreement, if the Commission, in accordance with statutory authority or other authority available to it, determines that such charges, or other provisions are not applicable.

ARTICLE VIII - ESTABLISHMENT OF PLUTONIUM ACCOUNT

A. The Commission will establish a plutonium account for Agency to which will be debited, as provided herein, the amount or amounts equal to the value of the material subject to this Agreement. Such account will be credited, as provided herein, with the amount or amounts equal to the value of the material returned or paid for in accordance with this Agreement. The value of material reflected in this account after credit for the value of material returned and for payments for material consumed shall represent the amount due to the Commission for material not returned or paid for. In the event material paid for provisionally as having been consumed is later re-established in Agency's account, said account shall be debited as of the date of refund (or appropriate setoff) of such payment to Agency as provided in paragraph C. of Article X hereof, with the amount or amounts equal to the value of such material at the time of such re-establishment in Agency's account.

B. Except as otherwise provided in this Agreement, Agency's account will be debited for material furnished as of the date material is delivered to Agency, provided that in the case of leased material transferred directly from a lessee of the Commission, the debit will be made as of the effective date specified in the order executed by Agency, the lessee, and the Commission for such material. Except as otherwise agreed to by the Commission, such effective date shall not precede the date of the Commission's execution of such order by more than 30 days and such date shall also be set forth in the applicable transfer document.

C. Agency's account will be credited for material returned to the Commission or transferred to a lessee only when material is returned or transferred in accordance with Article V. Except as otherwise provided in this Agreement, Agency's account will be credited for material returned directly to the Commission as of the date the material is delivered to a location specified by the Commission pursuant to this Agreement. Credit for material transferred to a lessee will be made as of the effective date specified in the order executed by the lessee, the Commission, and Agency. Credit for material paid for will be made as of the date payment is received by the Commission.

D. Whenever the Commission changes any applicable base charge as provided in Article IX below, the value of material recorded in Agency's account will be recomputed at the new base charge, provided that the value of material consumed as of the effective date of such change shall not be recomputed. Subsequent to the effective date of the change in the applicable base charge, the new base charge will be used in determining the value of material consumed.

E. Agency will be promptly notified of the debits and credits made to its account as the result of shipments, consumption, or transfers of material, and of any changes in the value of material in such account as the result of changes in the applicable base charges. Agency will promptly notify the Commission of any disagreement with, or alleged discrepancies, or errors in such notices.

ARTICLE IX - CHANGES IN BASE CHARGES AND SPECIFICATIONS

A. The base charges, standard form, and specifications for material furnished pursuant to this agreement are subject to change by the Commission in accordance with the Act.

B. Any increase in base charges or any changes in the standard form or in the Commission's established specifications shall require at least 180 days' notice to Agency by publication or otherwise.

ARTICLE X - PERFORMANCE OF AEC OBLIGATIONS - BILLING

A. The Commission may fulfill its obligations under this Agreement through the operator of any of its facilities. No such operator is authorized to modify the terms of this Agreement, waive any requirement thereof, or settle any claim or dispute arising hereunder.

B. Billings for amounts due the Commission under the Agreement will ordinarily be made

(1) following the performance of any service, and

(2) semiannually for consumption of material.

C. All billings and payments made on a provisional basis are subject to adjustment to recognize actual or calculated amounts, isotopic content, and specifications of material involved. Whenever Agency has provisionally paid for material reported as having been consumed and such material is later re-established in Agency's account, the Commission shall refund to Agency (or appropriately setoff against any amounts due the Commission) the amount paid by Agency for such material. The adjustments provided for in this paragraph will not subject Agency or the Commission to liability for interest.

D. All bills rendered by or on behalf of the Commission are due 30 days from the date of invoice.

ARTICLE XI - TIME OF DELIVERY

The Commission will make reasonable efforts to deliver material at the time or times stated in orders for material subject to this Agreement.

ARTICLE XII - DELIVERY - F.O.B. POINT

A. Material furnished directly from a Commission facility will be shipped f.o.b. Agency's vehicle or commercial conveyance at such Commission facility. Delivery of material or containers to Agency or its designee or to a carrier for the account of Agency or its designee shall be deemed delivery of such material or containers to Agency for the purposes of this Agreement.

B. Unless Agency furnishes a prepared bill of lading, all shipments by the Commission will be made collect on a commercial bill of lading to be converted at destination.

C. When Agency obtains material from a lessee of the Commission pursuant to this Agreement, the Commission shall not be responsible for costs of packaging, shipment, and handling.

ARTICLE XIII - CONTAINERS AND EQUIPMENT

A. All shipments of material from the Commission to Agency, and from Agency to the Commission, will be made in Agency-furnished containers; provided, however, that in the event the Commission determines that the required containers are not reasonably available from commercial sources, the Commission may furnish Commission-owned containers if such are available. Any Commission-owned containers to be used for shipment of material will be made available to Agency, f.o.b. Agency's vehicle or commercial conveyance, at a Commission facility designated by the Commission, unless otherwise agreed. Agency-furnished containers and equipment shall be delivered to a Commission facility designated by the Commission within a reasonable time specified by the Commission prior to the scheduled delivery of materials to be shipped to Agency in such containers and equipment. Agency-furnished containers or equipment will be used by the Commission only for the shipment of material from the Commission to Agency and for temporary storage of material shipped therein.

B. All containers and equipment, whether Commission-owned or Agency-furnished, must meet Commission regulations, specifications, and practices as to safety, design criteria, cleanliness, and freedom from contamination in effect at the time furnished, utilized, or returned, of which the Commission shall be the sole judge. In the event material is returned by Agency to the Commission in non-Commission-owned containers and other material is to be delivered to Agency, the Commission shall utilize to the extent practicable such non-Commission-owned containers for shipments of material if so desired by Agency. The Commission will promptly return to Agency non-Commission-owned containers and other equipment identified as "Returnable," but will not be responsible for any loss of or damage to such containers or equipment except as may result from its fault or negligence. Such return shipments by the Commission will be made f.o.b. Agency's vehicle or commercial conveyance at the Commission facility to which they were shipped.

C. Agency shall pay such rental charge, for such containers and equipment, as shall be established by the Commission for general application to users of such Commission-owned property. Agency will promptly return Commission-owned containers and equipment to the Commission facility from which received, f.o.b. Agency's vehicle or commercial conveyance at the Commission facility. Agency will not be responsible for any loss or damage to Commission-owned containers or equipment except as may result from the fault or negligence of Agency, its contractors, or agents. Commission-owned containers or equipment will be used only for shipment of material to and from the Commission and for temporary storage of material shipped therein.

D. Whenever material or containers are shipped to the Commission or Commission-owned containers are returned to the Commission, and the Commission elects to decontaminate the containers, railroad cars, trucks, or other shipping vehicles or the Commission's unloading area and machinery, because the containers, or the material or the method of shipment failed to meet the health and safety standards prescribed by the Commission or any other Federal or State agencies having jurisdiction over such matters, Agency shall pay the Commission the full cost of such decontamination as determined by the Commission in accordance with established Commission pricing policy. Any residual quantities of material in containers or equipment returned to the Commission will be deemed to have been consumed by Agency, and Agency shall pay for such material in accordance with this Agreement.

ARTICLE XIV - DETERMINATION OF MATERIAL QUANTITIES AND PROPERTIES

A. The Commission will furnish Agency a statement of the quantities and properties, including a statement of the weight of the material subject to this Agreement which is received by Agency directly from a Commission facility or returned directly to a Commission facility. The following provisions and procedures shall apply to the determination of the quantities and properties, including weight of the material:

1. Commission samples obtained at a Commission facility using the Commission's procedures will be binding upon the Commission and Agency unless the Commission and Agency agree upon the use of other samples, procedures or sampling locations.

2. The weight of the material will be determined prior to delivery to Agency or acceptance of delivery by the Commission, as the case may be, at a Commission facility using the Commission's procedures and facilities. The weight of the material determined by the result of such procedures shall be binding upon the Commission and Agency, unless the Commission and Agency agree upon other procedures or facilities.

B. Agency may, upon request to the Commission, observe the weighing of the material and the taking of samples by the Commission. The dates and places for the weighing and sampling will be established by the Commission and communicated to Agency upon receipt of Agency's request.

ARTICLE XV - TRANSFER OF MATERIAL

Transfer of material by Agency to a lessee with the approval of the Commission as provided in this Agreement shall not have the effect of relieving Agency of any obligation hereunder, except as to return of or payment for material so transferred.

ARTICLE XVI - OTHER CONTRACTS AND AGREEMENTS

This Agreement contemplates the possibility of separate agreements between Agency and the Commission with respect to materials which are subject to this Agreement, which may provide for suspension, termination, or revision of matters hereunder; and for reimbursement of charges incurred pursuant to this Agreement. Except as provided in such agreements, Agency's obligations under this Agreement for material subject to this Agreement shall continue notwithstanding the existence of such separate agreement or agreements.

ARTICLE XVII - NOTICES

A. Any notices required by this Agreement of Agency shall be submitted in writing to the Commission addressed to:

AEC Plutonium Leasing Officer
Richland Operations Office
United States Atomic Energy Commission
P. O. Box 550
Richland, Washington 99352

509-942-7378
P. Craig
509-942-7275
Mrs. Rorick

B. Any notices required by this Agreement of the Commission shall be submitted in writing to Agency addressed to:

Commandant

U. S. Army Chemical Center and School

ATTN: Chief, Health Physics Division

Fort McClellan, Alabama 36201

IN WITNESS WHEREOF, the parties hereto have executed this Interagency Agreement the day and year first above written.

U. S. Army Chemical Center and School
(Agency)

BY: R. L. Hulett

TITLE: Assistant Commandant

THE UNITED STATES ATOMIC ENERGY COMMISSION

BY: P. R. Craig
(AEC Plutonium Leasing Officer)

DD Form 96
1958 Summary of Corrective Action, 7 January 1958. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

SECURITY CLASSIFICATION (if any)

DISPOSITION FORM

FILE NO.	SUBJECT
	Summary of Corrective Action

TO	FROM	DATE	COMMENT NO. 1
Isotope Committee	Rad Safe Officer	7 Jan 58	

The following is a summary of actions taken by the Radiological Branch in regard to the recommendations made by the U. S. Army Environmental Health Laboratory on 28 May 1957.

a. A locally designed metal tag has been forwarded to Purchasing and Contracting for local manufacture.

b. Same as sub paragraph a.

c. Accomplished by initiation of a daily inventory of sources.

d. Leakage tests on all radium sealed sources are being conducted every 3 months. Leakage tests at Pelham Range are conducted on 5-10% of the sources every 6 months.

e. "Hot Cell" design and location are still being studied.

f. Signs have been placed on all contaminated material and it is being safely stored.

g. No contaminated material used for training exists.

h. An adequate fence around Pelham Range has been erected.

i. Accomplished.

j. No action necessary.

k. Reference sub-paragraph "C".

l. Accomplished by erection of combination barbed—hog wire fence.

m. AEC does not consider it necessary to decontaminate old burial ground if isotope has a half-life of one (1) year or less. Material in old burial ground has been identified as Tantalum (half-life 115 days).

n. Fence materials have been requested.

U. S. GOVERNMENT PRINTING OFFICE: 1953 O - 906975

REPRODUCED AT THE NATIONAL ARCHIVES

Isotope Committee Meeting
1952a Fourth Meeting, 25 June 1952. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

CMLTC-S-8 26 June 1952

[redacted]

MINUTES OF THE MEETING OF THE ISOTOPES COMMITTEE OF THE CHEMICAL CORPS SCHOOL

In accordance with Memorandum No. 1, The Chemical Corps School, Chemical Corps Training Command, Fort McClellan, Alabama, subject: "Isotopes Committee", dated 2 January 1952, pars 2 and 4, SO 14, The Chemical Corps School, Chemical Corps Training Command, Fort McClellan, Alabama, dated 31 January 1952, and at the call of the chairman of the Isotopes Committee, the fourth meeting of the Isotopes Committee was held at The Chemical Corps School on 25 June 1952.

The meeting was called to order by the committee chairman at 1000 hours. All members of the committee were present.

The minutes of the previous meeting were read by the recorder and presented to the committee for approval. The committee voted to approve the minutes as read.

First in the order of business was the status of any unfinished business.

Lt Pardee, the Radiological Safety Officer, reported that the radiological monitoring area "Rattlesnake Gulch" of The Chemical Corps School had been marked with radiological contamination symbols; 16 curies of Co^{60} had been received at the Raiological Laboratories and set up in the field monitoring area "Rattlesnake Gulch" for training personnel in the techniques of monitoring a radiologically contaminated area; The Chemical Corps School has a total of 48 curies of Co^{60} all of which is located in 2 and 4 curie point sources in the field monitoring area; these point sources have been changed from plastic to metal capsules which are dropped into wells in the ground when not being used and secured by lock and key; the Isotopes preparation room for storage and preparation of gamma, beta and beta-gamma emitting isotopes for training purposes had been completed as per recommendations made during a previous meeting, reference, minutes of Isotopes Committee Meeting of 28 March 1952; the Health Physics Office had been moved as per recommendations; several shipments of beta, gamma and beta-gamma emitting radioisotopes had been received from the Oak Ridge National Laboratory, Oak Ridge, Tennessee during the past three months and were stored in the storage area of the Isotopes preparation room; wash basins had been installed in the scaler room, top floor, laboratory "A", Bldg T-836 for students using radioisotopes to wash their hands before leaving the laboratory.

[redacted]

The next order of business was that of any new business.

A request for the purchase of radioisotopes made by the Military Arts Branch, The Chemical Corps School was presented to the committee by the Radiological Safety Officer for approval. The purchase order was for the purchase of 10 each Cobalt 60 sources having activities of 2 curies per source. These sources were to be used in the CBR Familiarization Course in the Pelham Range Area as a training aid. The sources were to be stored when not in use at the site at which they were used in a similar manner as that used in the radiological field monitoring area "Rattlesnake Gulch".

Col Thompson, the School Surgeon, brought up the question as to the radiation dosage which personnel would receive during such an exercise using this quantity of radioactive materials. Lt Pardee, the Radiological Safety Officer, informed the committee that during the operation of such an exercise a Health Physics representative was always present to enforce radiation safety measures and prevent the overexposure of personnel. Also, that RADIAC instruments used in such an exercise have been modified to register radiation intensities greater than the acutal intensity by a factor of 100.

The decision of the committee was to approve the purchase of the radioisotopes with the following recommendations, "Modified RADIAC instruments will be used during the exercise. However, personnel will be informed of this modification and all personnel will wear correct reading personnel dosage devices at all times during such an exercise."

The next order of business was that of D/A policy regarding the disposition of records of radiation exposure which are maintained by the Health Physics Group at The Chemical Corps School.

Since information regarding the D/A policy on the subject wasn't available the committee decided that a letter should be prepared for the Commandant's signature to The Adjutant General requesting the information regarding the policy of Maintenance of records of radiation dosage of personnel working with radioactive materials.

MINUTES OF THE MTG OF THE ISOTOPES COMMITTEE OF THE CML C SCH

There being no other business the meeting was adjourned by the chairman at 1025 hours.

George F Carroll

GEORGE F. CARROLL
1st Lt, Cml C
Recorder

APPROVED:

George F Carroll

for _____
NELSON McKAIG, JR.
Colonel, Cml C
Chairman

Copies furnished:

Comdt, The Cml C School
Health Physics Group, The Cml C School

Isotope Committee Meeting
1952b Sixth Meeting, 19 December 1952. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

CMLTC-S-8 19 December 1952

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MINUTES OF THE MEETING OF THE ISOTOPES COMMITTEE
OF THE CHEMICAL CORPS SCHOOL

In accordance with Memorandum No. 1, The Chemical Corps School, Chemical Corps Training Command, Fort McClellan, Alabama, subject: "Isotopes Committee", dated 2 January 1952, pars 2 and 4, SO 14, The Chemical Corps School, Chemical Corps Training Command, Fort McClellan, Alabama, dated 31 January 1952 and at the call of the Chairman of the Isotopes Committee, The Chemical Corps School, the sixth meeting of the Isotopes Committee was held at The Chemical Corps School on 12 December 1952.

The meeting was called to order by the Committee Chairman at 1000 hours. Colonel Barksdale, Major MacWilliams, 1st Lt Pardee and 1st Lt Lloyd were present. Members absent were Colonel Thompson and 1st Lt Carroll.

The minutes of the previous meeting were read by the recorder and presented to the Committee for approval. The Committee voted to approve the minutes as read.

First in the order of business was the status of any unfinished business.

Lt Pardee, the Radiological Safety Officer, reported that the 20 curies of Co^{60} reported as received had been installed in the Pelham Range CBR Field Familiarization Course.

1st Lt Elwood A. Lloyd has been appointed as a member of the Isotopes Committee as per Par 3, SO 150, The Cml C Sch, dated 21 October 1952.

The next order of business was that of any new business.

The report of the conference with Mr. Bizzell of Advisory Field Service Branch, Isotopes Division, United States Atomic Energy Commission, of 13 November 1952 was presented and recommendations of Mr. Bizzell were discussed and were approved for action insofar as possible. The specific recommendations are listed in minutes for that conference.

Major MacWilliams reported that proposed move of Radiological Survey Area would require a minimum of three weeks.

Major MacWilliams recommended that Mr. Moore, civilian employee of the Radiological Laboratories, attend the 30th ADO Course. Recommendation approved.

Request of Navy Unit for permission to use isotopes in large scale decontamination exercise was considered and approved with reservations as listed in reply.

Lt Pardee made a brief interim report on the lost isotope. No further action by the Committee was indicated at this time.

The pending receipt of a 9-curie source from Naval Procurement was discussed and decision was made to accept this source when delivered.

Colonel Barksdale reported that he and Lt Col Caldwell had made an [redacted] inspection of the isotope storage vault and that corrective action had been taken.

Colonel Barksdale asked if the School should send a representative to the AAAS meetings in St Louis in January. Opinion was negative.

There being no further business, the meeting was adjourned by the Chairman at 1030 hours.

APPROVED:

JAMES E ROGERS, Lt Col, Cml C
Chairman

ELWOOD A LLOYD, 1st Lt, Cml C
Recorder

Copies Furnished:
Commandant, The Cml C Sch
Health Physics Gp, The Cml C Sch

[redacted]

Isotope Committee Meeting
1954a Twelfth Meeting, 9 July 1954. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

THE CHEMICAL CORPS SCHOOL
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

[redacted]

MINUTES OF THE ISOTOPE COMMITTEE

10 July 1954

The twelfth meeting of the Isotope Committee was held at The Chemical Corps School on 9 July 1954.

The meeting was called to order by the Committee Chairman at 1040 hours. The following members were present: Lt. Col. Rogers, Lt. Col. Brice, 1st Lt. Carroll, 1st Lt. Lloyd. Lt. Deeks, Medical Member was absent.

The minutes of the previous meeting were read by the recorder and presented to the committee for approval. Lt. Carroll recommended the following addition to paragraph 4 of the new business section of the minutes of the eleventh meeting:

> "Approval was granted for the use of radioactive material only in the area fenced and designated as the Toxic Gas Area of Pelham Range. Any other area was disapproved on the basis that AEC regulations cannot be complied with in other areas without extreme difficulty".

With this correction, the minutes of the previous meeting were approved.

First in the order of business was the status of the unfinished business.

1. Purchase of Cesium 137. In accordance with Item 5 and 6 of the minutes of the last meeting six sources of various sizes were requisitioned on 21 April. This quantity is sufficient for most student laboratory exercises. The purchase of Cs^{137} for field sources is not recommended on the basis that the purchase of Cs^{137} in large quantities is much more expensive than Co^{60}. This differential is not true for the small quantities requisitioned. (See price breakdown in file). This purchase, action and recommendation were approved.

Next in the order of business was the new business.

1. Lt. Deeks, Medical Member of the committee, has been transferred. The committee approved the recommendation for the appointment of Lt. Col. Cameron as Medical Member of the committee.

[redacted]

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2. The semiannual reports of the Radiological Safety Officer were submitted to and approved by the committee. (See Incl 1, Report of Receipt of Unpackaged Radioisotopes, and Incl 2, Unpackaged Isotopes on Hand at The Chemical Corps School. No burials had been made).

3. The current status of film procurement for dosimetry was discussed. Action by the Radiological Branch, through Com and Channels, to attempt to prevent further difficulties was approved.

There being no further business the meeting was adjourned at 1120 hours.

Elwood A. Lloyd

ELWOOD A. LLOYD, 1st Lt., Cml C
Recorder, Isotope Committee

APPROVED:

James E. Rogers

JAMES E. ROGERS, Lt Col, Cml C
Chairman, Isotope Committee

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HEALTH PHYSICS GROUP
THE CHEMICAL CORPS SCHOOL
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

GFC/emm

CMLTC-S-8

6 July 1954

SUBJECT: Unpackaged Isotopes on Hand at The Chemical Corps School

TO: Isotope Committee
The Chemical Corps School
Fort McClellan, Alabama

1. Listed below are radioisotopes in unpackaged form on hand at The Chemical Corps School, as of 1 July 1954. Tabulated data shows name of Isotope and quantity on hand.

ISOTOPE	QUANTITY ON HAND
Cadmium-115	.05 MC
Cobalt-60	8 MC
Iron-59	.07 MC
Niobium-95	.23 MC
Rubidium-86	.02 Units
Strontium-89	4.75 MC
Yttrium-91	.75 MC

Partially decayed mixture estimated - 7 MC

2. The partially decayed mixture consists of quantities of isotopes whose specific activity is inadequate for use as samples for scaler counting. These isotopes are used for radiological decontamination demonstrations and exercises.

George F Carroll

GEORGE F. CARROLL
1st Lt., Cml C
Radiological Safety Officer

HEALTH PHYSICS GROUP
THE CHEMICAL CORPS SCHOOL
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

GFC/emm

CMLTC-S-8 [redacted] 6 July 1954

SUBJECT: Report of Receipt of Unpackaged Radioisotopes

TO: Isotope Committee
The Chemical Corps School
Fort McClellan, Alabama

1. Listed below are radioisotopes received at The Chemical Corps School during the first half of calendar year 1954 (January to July).

2. The tabulated data shows name of Isotope, quantity received and date of receipt of isotope.

DATE	ISOTOPE	QUANTITY
21 Dec 53	Cadmium-115	2 MC
12 Jan 54	Yttrium-91	2 MC
14 Jan 54	Iodine-131	2 MC
18 Jan 54	Iron-59	1 MC
18 Jan 54	Phosphorus-32	2 MC
23 Feb 54	Niobium-95	1 MC
24 Feb 54	Iodine-131	2 MC
24 Feb 54	Phosphorus-32	2 MC
1 Mar 54	Strontium-89	2 MC

George F Carroll

GEORGE F. CARROLL
1st Lt., Cml C
Radiological Safety Officer

[redacted]

Isotope Committee Meeting
1954b Thirteenth Meeting, 18 August 1954. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

THE CHEMICAL CORPS SCHOOL [redacted]
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

MINUTES OF THE ISOTOPES COMMITTEE

19 August 1954

The thirteenth meeting of the Isotope Committee was held at the Chemical Corps School on 18 August 1954.

The meeting was called to order by the Committee Chairman at 1400 hours. The following members were present: Col. Wood, Lt. Col. Brice, Lt. Col. Cameron, 1st Lt. Carroll, and 1st Lt. Lloyd. All members were present.

The minutes of the previous meeting were read by the recorder and presented to the committee for approval. The minutes were approved as read.

First in the order of business was the status of the unfinished business.

1. Arrival of Cesium 137. The Cesium 137 which was approved at the previous meeting arrived and is in the quantity needed, as calculated for calibration sources.

2. Dosimetry Film Procurement. The procurement of film was discussed. The delivery of the 21 April 1954 requisition for 14 gross of film is still pending. Post Signal is inquiring by TWX and telephone. Office Director of Logistics has been informed that the school has only a two week supply of film on hand at this time.

3. Paragraph 5, S. O. 33, The Chemical Corps School, dated 26 July 1954, appointed Lt. Col. Joseph M. Cameron as medical member of this committee vice Lt. Daeks, transferred.

Next in the order of business was new business.

1. Paragraph 5, S. O. 35, The Chemical Corps School, dated 17 August 1954, appointed Col. C. H. Wood as Chairman of this committee vice Lt. Col. James E. Rogers.

2. Action on Pvt. Clarke. Considering the medical reports of consistently low white cell blood count, it was recommended by Lt. Col. Brice as Chief, Health Physics Group, that Pvt. Kenneth M. Clarke, US 51300432, be restricted to work which will not require or allow him to be exposed to internal or external radiation hazards. It was further agreed that since all personnel of the Radiological Branch

[redacted]

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may possibly be called on to work with radioactive material, Pvt. Clarke should be transferred from his present position with the Radiological Branch to another position where there would be no possibility of exposure. This recommendation had the concurrence of the medical member who stated that the present condition of Pvt. Clarke could in no way be attributed to radiation exposure received at the school. The complete medical and exposure record of Pvt. Clarke is filed in the committee files.

3. Progress Report on Pelham Range Training Area. The contents of the indorsement which grants approval for the use of an area of Pelham Range ((1st Ind. (File CMLTC-T 600 (22 July 54) Subject: Request for Pelham Range Training Area, From: Headquarters, CMLCTNGCOM, To: Commandant, The Chemical Corps School, dated 30 July 1954) to letter, File CMLTC-S-8, Subject as above, To: Commanding Officer, CMLCTNGCOM, ATTN: Director Training, dated 22 July 1954)), was read to the committee. The committee agreed that to carry out the responsibilities of the Commandant for the safety program for CMLCTNGCOM, and particularly for radiation safety, all units desiring to use this area must first clear through the Health Physics Group of the Isotope Committee.

4. Approval was requested for the purchase of Cobalt 60 for the Pelham Range Training Area in quantities up to 500 curies in an unencapsulated form. After discussion of the facilities and personnel available to the school to perform the necessary encapsulation, approval was granted for the purchase of the Cobalt 60 in this form.

5. Approval was requested for the use of larger quantities of short half life isotopes in the Howitzer Hill Decon Exercise (8859) in order to provide more realistic training. Tentative approval was granted with the limitation that the isotopes used be those of less than 40 day half life.

6. Lt. Carroll reported a burial of waste radioisotopes and contaminated articles. Three containers were buried. Full information is entered in the Health Physics Journal.

7. It was recommended that some new officer, to be selected by Lt. Col. Brice, be sent to a four week training course at Oak Ridge to prepare to replace members of the Health Physics Group. This recommendation was approved.

8. In view of the unavailability of long tour officer personnel and to provide continuity in the Health Physics Group, it was agreed unanimously that the employment of civilian personnel would be highly advantageous. It was directed that an investigation of the possibility of obtaining a competent additional civilian for this position be made.

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There being no further business the meeting was adjourned at 1450.

Elwood A. Lloyd
ELWOOD A. LLOYD
1st Lt. Cml C
Recorder, Isotope Committee

Approved:

C. H. Wood
C. H. WOOD
Col, Cml C
Chairman, Isotope Committee

FOR OFFICIAL USE ONLY

Isotope Committee Meeting
1954c Fourteenth Meeting, 17 December 1954. The Chemical Corps School.

THE CHEMICAL CORPS SCHOOL
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

MINUTES OF THE ISOTOPES COMMITTEE

20 December 1954

The fourteenth meeting of the Isotopes Committee was held at The Chemical Corps School on 17 December 1954.

The meeting was called to order by the Committee Chairman at 0900 hours. The following members were present: Col Wood, Lt Col Brice, Lt Col Cameron, Capt Carroll, and Capt Lloyd. All members were present. It was requested that Lt Powell and Lt Killen be allowed to observe the meeting. Request was approved.

The minutes of the previous meeting were read by the recorder and presented to the committee for approval. The minutes were approved as read.

First in the order of business was the status of the unfinished business.

1. Dosimetry Film Procurement. The procurement of film was discussed. Delivery of the 21 April 1954 requisition for 14 gross of film was made in September after considerable TWX and phone communication. An additional 3300 film packets were ordered on 22 September 1954 and were received on 16 December 1954. The requisition specifications were not met in that the film was unnumbered. It was directed that a new order with stronger specifications be placed in order to replace the unsatisfactory film with numbered film as soon as possible.

2. Action on Private Clarke. The action directed on Pvt Clarke at the thirteenth meeting has been completed by his transfer to the Chemical Agents Branch.

3. Progress report on Pelham Range. A report was made by Lt Powell (Incl 1). It was directed that a letter be prepared to expedite procurement of the necessary material in time to avoid unnecessary storage of an expected shipment of Cobalt-60.

4. Approval for use of Radioisotope. Approval was requested for the use of Mercury-203 (half-life of 43.5 days) in the Howitzer Hill Decontamination Exercise (8859). Request was approved.

5. Officer training at Oak Ridge. It was noted that Lt Powell will attend a four-week Health Physics training course at Oak Ridge in March 1955, as approved in the thirteenth meeting.

6. Civilian for Health Physics. A request has been forwarded from the School for an allotment of space for a civilian (GS 7 to 9) for the Health Physics Group. It was directed that a strong follow-up be made.

Next in order of business was the new business.

1. Renewal of general authorization. It was reported that the application for a general authorization for procurement of radioisotopes during 1955 was forwarded to USAEC on 16 December 1954. The accompanying letter included answers to specific questions relative to the authorization.

2. The Radiological Safety Officer made the following reports which are included as Inclosures to the minutes:

a. Report of minor contamination of personnel (Incl 2).

b. Reports of over-exposed film badges (Incl 3, 4, 5, and 6).

c. Report of receipts of unpackaged Radioisotopes during the Second Half of the Calendar Year 1954 at The Chemical Corps School (Incl 7).

d. Report of Unpackaged Isotopes on Hand (Incl 8).

e. Report of burial of ten containers at the School burial ground (Incl 9).

3. Storage Vault. A report was made on the flooding of the vault. Because of either improper design or construction, surface water drains through the vault, into the storage well, and out to the storm sewer. A strong request for grading, installation of a valve in the drain, fencing around the vault, and construction of a road to the vault has been forwarded to CMLCTNGCOM. (Letter ref: CMLTC-S-1, To: Commanding Officer, CMLCTNGCOM, dated, 9 Dec 1954, Subject: Correction of Deficiencies in Radioactive Storage Vault. This action was endorsed and approved by the committee.

4. Tantalum Source. In response to Letter CMLTC-S-8, To: CO, CMLCTNGCOM, dtd 23 Oct 54, Subject: Request for Disposition Instructions, and signed by Col Wood for the committee, information has been received to the effect that OCCMLO has directed that the Tantalum and container be shipped, via technical escort, to Oak Ridge for burial. The committee dissented and recommended holding the Tantalum at the School for burial here at a later date. It was directed that a letter be forwarded stating specific reasons as discussed in the committee meeting (Ltr CMLTC-S-8, to CO, CMLCTNGCOM, dtd 29 Dec 54, Subject: Disposition of Radioactive Tantalum and Container.)

[redacted]

MINUTES OF THE ISOTOPES COMMITTEE (Cont'd)

5. Qualifications of New Members. As required by USAEC, Oak Ridge, the qualifications of the new members of this committee, Col Wood and Lt Col Cameron, were forwarded on 3 September 1954.

6. Consolidation of Health Physics and Isotopes Committee files. It was requested that certain sections of the Isotopes Committee file be placed, for administrative reasons, in the Health Physics file. The sections to be retained in the Isotopes Committee file are:

a. Minutes of meetings.

b. Health Physics memos.

c. Correspondence.

d. Report of SOP violations.

e. Chemical Corps School orders and memos concerning the Isotopes Committee.

All other sections of the file will be transferred to the Health Physics file. The request was approved.

7. New Members. It was proposed that 2nd Lt William G Powell, 04001720, and 2nd Lt James R. Killen II, 04027476, be nominated as members of the committee and designated as Assistant Radiological Safety Officers. The proposal was moved and carried. It was directed that a letter of qualification of the new members be sent to USAEC.

8. Classification of Isotopes Committee file. It was requested that the Isotopes Committee file be classified: "For Official Use Only." The request was approved.

There being no further business the meeting was adjourned at 1000 hours.

Elwood A. Lloyd
ELWOOD A LLOYD
Capt, Cml C
Recorder, Isotopes Committee

APPROVED:

C. H. Wood
C. H. WOOD
Col, Cml C
Chairman, Isotopes Committee

[redacted]

HEALTH PHYSICS GROUP
THE CHEMICAL CORPS SCHOOL
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

17 December 1954

SUBJECT: Pelham Range Radiological Survey Area

TO: Isotopes Committee
The Chemical Corps School
Fort McClellan, Alabama

1. Project: To construct a larger and more realistic radiological survey training area on Pelham Range.

2. Work Completed:

a. The area of contamination has been cleared of brush and dead tree limbs with the support of the first RSSU.

b. The area has been geometrically surveyed so that the location of the source wells can be accurately recorded.

c. The center of the area of contamination has been burned over to remove a two foot stand of dead grass and brush which detracted from the realism of the training area and inhibited the construction of the area.

d. Stakes marking the location of the first pattern of contamination, 105 source wells, have been surveyed in place.

e. Ten salvaged medium tanks have been obtained to place in the area to add realism to the problem and to serve as land marks. Other military salvage, such as tents, fuel cans, and tires have been obtained.

3. Work pending:

a. Source wells are completed except for the hinges and hasps. These items are on order by the training aids branch and were due on the 27th of November, but have not yet been received.

b. The first 100 source capsules, empty, have been delivered by training aids, and 150 more are being constructed.

c. Engineer support for the drilling of 105 holes with a mechanical auger, to accomodate the source wells, was requested 22 October 1954. At the same time support was requested to tow the 10 tanks, which are now on Pelham Range, to the new area. No acknowledgement of either of these requests has been received.

[redacted]

d. An order of 500 Curies of Cobalt-60 has been placed with ORNL. The Cobalt-60 is expected to be of low specific activity, in pellets ranging in size from 1/8" to 1/4" in diameter. It will be shipped together in one container.

James R. Killian II

Submitted by for William G Powell
2d Lt. Cml C

[redacted]

Isotope Committee Meeting
1956a Seventeenth Meeting, 15 March 1956. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

THE CHEMICAL CORPS SCHOOL
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

MINUTES OF ISOTOPE COMMITTEE

10 April 1956

The seventeenth meeting of the Isotope Committee was held at The Chemical Corps School on 15 March 1956. The following members were present: Colonel Wood, Lt Colonel Brice, Lt Powell, and Lt Killen. Lt Colonel Cameron was absent.

The minutes of the previous meeting were read by the recorder and presented to the committee for approval. The minutes were approved as read.

It was recommended and approved that note be made of a series of informal meetings as follows:

a. The Isotope Committee met on 22 August 1955. It was noted that The Chemical Corps School has been directed by higher headquarters to conduct a feasibility study of methods for the survey of ground contamination resulting from the surface detonation of large weapons. Methods of conducting the study were discussed and estimates were made of the additional radioactive material required to establish a radiological study area. Detailed plans were made for construction and clearing of the area. Approval was given for an initial order of 750 curies of Cobalt 60.

b. The Isotope Committee met on 7 December 1955. Specific plans and assignment of personnel for the feasibility study was made. The use of new instruments and other equipment was discussed and it was noted that an initial $3500 has been alloted for the study. Plans for a new semi-permanent multi-curie cell were approved.

c. The Isotope Committee met on 5 and 6 January 1956. Final arrangements were made for logistical support of the feasibility study. Radiological safety measures were discussed and it was recommended that these be included in the study SOP.

First in the order of business was the status of the unfinished business.

1. Dosimetry Film Procurement. It was reported that 3300 film packets were received on 10 January 1956.

2. Progress Report on Pelham Range. Lt Powell reported that an additional 90 source wells have been placed in the Radiological Survey Area #3 (Pelham Range). It was also reported that an additional 100 source wells are ready for placement in the area.

3. Radiological Survey Area #1. A report was made on the rebuilding

of the Summerall Gate Road area. New grid lines have been established and clearing of the area has commenced. A new source pattern has been planned.

4. Civilian for Health Physics. It was reported that a civilian T/D position was authorized for Health Physics, but that this position was eliminated by the civilian cut-back. Because of this, temporary overstrength of one officer has been authorized.

5. Radioactive Materials Storage Vault Area. It was reported that a fence was constructed around the area and the area has been blacktopped.

6. Personnel for Health Physics. Sgt Arthur M Binkley has left as Dosimetry Technician. Pfc James R Courtright, Pvt James L Christensen, and Pvt John H Mitchell have been assigned vice Sgt LaVie, Sp 3 Clemons, and Sp 3 Rutledge.

7. Storage Vault. It was recommended and approved that work be iniated for altering the door of the Radioactive Materials Storage Vault so it can be unlocked from the inside.

8. Film Packet Holders. It was reported that the 400 cadmium shielded film holders have been replaced by lead shielded holders.

Next in order of business was the new business.

Pur chase of Radioactive Cobalt. It was requested that approval be granted for the purchase of 1000 curies of Cobalt-60 for the enlargement of the Pelham Range Radiological Survey Area. The request was approved.

There being no further business the meeting was adjourned at 1130 hours.

James R. Killen II

JAMES R. KILLEN II
1st Lt, CmlC
Recorder, Isotope Committee

APPROVED:

Edwin Van Keuren

EDWIN VAN KEUREN
Colonel, CmlC
Commandant

REPRODUCED AT THE NATIONAL ARCHIVES

Isotope Committee Meeting
1956b Eighteenth Meeting, 10 April 1956. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

REPRODUCED AT THE NATIONAL ARCHIVES

THE CHEMICAL CORPS SCHOOL
CHEMICAL CORPS TRAINING COMMAND
FORT McCLELLAN, ALABAMA

MINUTES OF ISOTOPE COMMITTEE

10 April 1956

The eighteenth meeting of the Isotope Committee was held at The Chemical Corps School on 10 April 1956.

The meeting was called to order by the Committee Chairman at 0800 hours. The following members were present: Colonel Wood, Lt. Colonel Brice, Lt. Powell and Lt. Killen. Lt. Colonel Cameron was absent. It was requested that Lt. Smith be allowed to observe the meeting. The request was approved.

The minutes of the previous meeting were read by the recorder and presented to the committee for approval. The minutes were approved as read.

First in the order of business was the status of the unfinished business.

1. Dosimetry Film Procurement. It was reported that 3600 film packets were received on 5April 1956. This film did not meet School specifications in that the numbering duplicated film presently being utilized. The film was returned to School Supply for replacement. It was directed that an investigation of the circumstances be made.

2. Radiological Survey Area #3 (Pelham Range). Lt. Powell reported that Post Engineer will improve the main access road into the area and will clear the area of trees. An investigation is being made to develop new methods for safe storage and utilization of the radioactive materials in the area.

3. Personnel for Health Physics: It was reported that a temporary overstrength of two officers and five enlisted men have been authorized for the conduct of the feasibility study. In addition, six men (enlisted) from First RSSU have been detailed to the Health Physics Group.

4. Emergency Exit in Storage Vault. No action has been taken concerning an interior lock release for the Radioactive Materials Storage Vault since the last meeting.

5. Purchase of Radioactive Cobalt. Lt. Powell reported that he visited Oak Ridge on 20-22 March 1956, and was able to obtain 1200 curies of Cobalt-60. The purchase order has been forwarded and the Cobalt is expected by 17 April.

Next in order of business was the new business.

1. New Member of Isotope Committee. It was proposed 2nd Lt. Robert F. Smith, 04 010 529, be nominated as member of the committee and designated as Assistant Radiological Safety Officer VICE Lt. Killen who is awaiting release from active Service. The proposal was moved and carried. It was directed that appropriate School action be taken and that a letter of qualification be sent to USAEC.

2. Ground Surveys at Pelham Range. It was requested that approval be granted for the use of Radiological Survey Area #3 (Pelham Range) by radiological ground survey classes. The request was approved.

3. Health Physics Society. Lt. Powell reported that a Health Physics Society has been formed and that application for new members are being accepted by Dr. E. Anderson, ORNL, Secretary. He also reported that a Health Physics Conference will be held from 25 to 27 June 1956 at Ann Arbor, Michigan.

4. Feasibility Study Progress Report. It was reported that considerable work has been accomplished for determining various instrument and equipment combinations for surveys of ground radiological contamination. A CONFIDENTIAL interim report is being prepared and will be on file with the Radiological Branch.

There being no further business the meeting was adjourned at 0850 hours.

James R. Killen (R.T.S.)
JAMES R. KILLEN II
1st Lt Cml C
Recorder, Isotope Committee

APPROVED:
Edwin Van Keuren
EDWIN VAN KEUREN
Col, Cml C
Commandant

Isotope Committee Meeting

1957a Twenty-fifth Meeting, 14 June 1957. Record Group 338, Box 5, Accession 72A1094. Washington National Records Center, Suitland, Maryland.

US ARMY CHEMICAL CORPS SCHOOL
FORT McCLELLAN, ALABAMA

MINUTES OF ISOTOPE COMMITTEE

14 June 1957

The 25th meeting of the Isotope Committee was called to order at 0730 hours, 14 June 1957. The minutes of the last meeting were read and approved.

The list of discrepancies in the isotopes handling system at the Chemical Corps School listed by the inspection team from the Environmental Health Laboratories was presented and discussed.

A temporary storage site for radioactive material was proposed by Capt Habermehl. It will consist of ground storage wells behind the present concrete storage building.

The construction of a new hot cell was discussed. It was recommended that instead of designing a completely new hot cell perhaps the design could be gotten from Oak Ridge. Location of the new hot cell will probably be to the rear of the Radiological Laboratory. The building to house the new hot cell is at present 4th out of 60 projects within Chemical Corps Training Command.

The proposed three day high level course will probably preclude use of the hot cell within the Radiological Laboratory if it is brought to the Chemical Corps School, because one of the rooms inside the laboratory will probably be utilized for this purpose.

Marking of individual source and hazards of the survey field were discussed.

The meeting was adjourned at 0830.

Victor V. Johnson

VICTOR V. JOHNSON
2/Lt CmlC
Recorder

APPROVED:

C. V. Burke

CARL V. BURKE
Colonel, CmlC
Commandant

REPRODUCED AT THE NATIONAL ARCHIVES

Recommended Improvements in Radiological Facilities by Environmental Health Laboratories

1. Film badges should be sent to Lexington Signal Depot at intervals of approximately four months to check the accuracy and reliability of our film developing and reading equipment.

2. All source capsules should be identified as to size and contents by some suitable system such as color or numbers on the capsule.

3. There should be an inventory performed on all radioactive material at the Chemical Corps School to verify its location and to insure that none is missing.

4. New and larger storage facilities are needed most urgently because of the large quantity of radioactive material on hand. Present facilities are completely inadequate.

5. A new hot cell should be constructed, near the storage area, which is large enough to handle any amount of radioactive material which we may have on hand in the forseeable future.

6. The question was raised as to whether water which enters the source wells is enough to cover the source capsule. If it does has the capsule been suitably constructed so as to withstand being immersed in water?

7. In as far as safety to the student is concerned it was suggested by the Inspection Team that since the sources on our survey field are so large some type of marker should be shown when they are in the operating position.

8. A suitable fence (2 or 3 strand) and padlocked gates all of which are suitably marked should be erected around the Rad Survey area. This fence should be surveyed at least monthly to determine that everything is in order.

9. In view of the amount of radioactive waste which is anticipated at the School in the future it was recommended that we cease using our burial grounds and ship our waste, in 50 gal. drums, either to Edgewood, Døugway, or perhaps Oak Ridge. This opinion was aggravated by the condition of the old burial grounds at Rattlesnake Gulch.

10. The old burial grounds at Rattlesnake Gulch will have to be dug up, preferably by pick and shovel to localize contamination, and either shipped to a recommended burial ground or reburied on Pelham Range. Contamination level should reach approximately 1mr/hr before the pits are covered. This is to make reasonably sure there are no capsules or particles of radioactive material which a person could pick up if they were uncovered.

Isotope Committee Meeting
1957b Twenty-ninth Meeting, 20 September 1957. The Chemical Corps School, Fort McClellan, Alabama.

US ARMY CHEMICAL CORPS SCHOOL
FORT McCLELLAN, ALABAMA

MINUTES OF ISOTOPE COMMITTEE

20 Sep 1957

The 29th meeting of the Isotope Committee was called to order at 0730 hours, 20 Sep 1957.

Those present were Col Wood, Lt Col Brice, Lt Col Bacon, Maj Beach, Maj Hinman, Capt Stamper, Lt Powell, Lt Ellis, and Lt Knight.

Col Wood stated that Mr. Hitch from the Division of Civilian Application of Radioisotope at Oak Ridge would be visiting the School on 3 Oct.

Rattlesnake Gulch is to have another fence, of hog wire and barbed wire, erected outside the present barbed fence during the coming week. New signs will be posted on this fence. They will also be posted on Pelham Range, and on the hot cell.

It was moved and passed that Lt Powell be reinstated as a member of the Isotope Committee.

It was moved and passed that Lt Col Bacon be deputy chairman of the Isotope Committee.

Biographies are to be submitted on all new and old personnel on the Isotope Committee. These are to be included with the AEC By-Product Material License.

A new SOP has been written and is now ready for review and approval.

It was directed that special orders be cut from CCTC specifically placing members of the Isotope Committee on that committee.

It was directed that radioactive materials will not be placed in the "hot cell" laboratory W either for handling, storage, or demonstrations.

The meeting was adjourned at 0800.

Victor V. Johnson

VICTOR V. JOHNSON
2/Lt CmlC
Recorder

APPROVED:
C. H. Wood
for

CARL V. BURKE
Colonel, CmlC
Commandant

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:
IEB:JWH

Oak Ridge, Tennessee
September 12, 1957

Colonel C. H. Wood
Assistant Commander
Chemical Corps School
Fort McClellan, Alabama

Subject: ERECTION OF FENCE SURROUNDING PELAM RANGE

Dear Colonel Wood:

Reference is made to our telephone conversation of this date and the letter of August 22 from Colonel Palmer.

We should like to confirm the agreement reached concerning the erection of a 6 foot fence consisting of 4 feet of mesh wire, which will minimize entry of small animals, to be surmounted by 3 strands of barbed wire. We would also like to confirm the understanding reached that a similarly constructed fence has been constructed around the old burial grounds located at Fort McClellan.

As pointed out to you during our telephone conversation, we should like to send a representative to Fort McClellan to take a closer look at this particular phase of your program and to discuss with you any additional information necessary pursuant to the issuance of a license to cover the Fort McClellan program. We shall contact you soon with regard to completing final arrangements for such a visit.

Very truly yours,

James W. Hitch

James W. Hitch, Assistant Chief
Byproduct Licensing
Isotopes Extension
Division of Civilian Application

cc: Colonel Lloyd MacMurray
Army Chemical Center, Maryland

✓ Xtra cys made for:
Col Holtzman, Post
Maj Hinman, CCTC
Capt Stamper, School
Col Aylesworth, "

ColWood/ac/5294
Date typed: 13Sep57

CMLTC-S-2

The Budd Company
Nuclear System Division
Radiation Facility
2450 Hunting Park Avenue
Philadelphia 32, Pennsylvania
ATTN: Mr. Stephens

Dear Mr. Stephens:

The U. S. Army Chemical Corps School uses some 6,000 curies of Cobalt 60 in testing field projects and instruction. We have a small "hot cell" designed locally which, while adequate, is not completely satisfactory for our purposes. In consultation with some of the people from Oak Ridge, they made reference to the fact that your company has done a lot of work in designing and constructing small cells.

I expect to be in the vicinity of Baltimore and Aberdeen during the period 26 to 28 September 1957. Permission is requested to visit with one of your design engineers, either on Thursday afternoon, 26 September, or Saturday morning, 28 September, in order that construction and design of a "hot cell" for handling the school's working curiage may be discussed.

Sincerely,

C. H. WOOD
Colonel, CmlC
Assistant Commandant

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Wood
File
Isotopes
Com -

UNITED STATES
ATOMIC ENERGY COMMISSION

IEB:JWH

Oak Ridge, Tennessee
September 12, 1957

Colonel C. H. Wood
Assistant Commandant
U. S. Army Chemical Corps School
Fort McClellan, Alabama

Subject: ERECTION OF FENCE SURROUNDING PELHAM RANGE

Dear Colonel Wood:

Reference is made to our telephone conversation of this date and the letter of August 22 from Colonel Palmer.

We should like to confirm the agreement reached concerning the erection of a 6 feet fence consisting of 4 feet of mesh wire, which will minimize entry of small animals, to be surmounted by 3 strands of barbed wire. We would also like to confirm the understanding reached that a similarly constructed fence has been constructed around the old burial grounds located at Fort McClellan.

As pointed out to you during our telephone conversation, we should like to send a representative to Fort McClellan to take a closer look at this particular phase of your program and to discuss with you any additional information necessary pursuant to the issuance of a license to cover the Fort McClellan program. We shall contact you soon with regard to completing final arrangements for such a visit.

Very truly yours,

/s/t/JAMES W. HITCH, Assistant Chief
Byproduct Licensing
Isotopes Extension
Division of Civilian Application

cc: Colonel Lloyd MacMurray
Army Chemical Center, Maryland

Westinghouse
ELECTRIC CORPORATION
COMMERCIAL ATOMIC POWER

P.O. BOX 355
PITTSBURGH 30, PA.

file
Isotope file.

September 11, 1957

Col. C. H. Wood
U. S. Army Chemical Corporation
Fort McClellan, Alabama

Dear Sir:

The Westinghouse Testing Reactor now being constructed at Waltz Mill, Westmoreland County, Pa., is expected to be in operation by April 1, 1957.

One of the many services available from the reactor is the preparation of metallic radio-isotopes. We are interested in determining the probable demand for such materials to aid in the proper planning of their production.

Since you have used one or more metallic radio-isotopes in the past and presumably have plans to use them in the future, we hope you will feel it to your benefit to have another source of such items available to you. If so, will you please complete and return the enclosed postcard?

We will keep you informed concerning our plans for radio-isotope production. Thank you for your cooperation.

Sincerely yours,

E. T. Morris

E. T. Morris
Manager, WTR

YOU CAN BE *SURE*... IF IT'S Westinghouse