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CHEMICAL CORPS RESEARCH AND ENGINEERING COMMAND
Proving Ground Division

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CMRRE-G-3

5 October 1953

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MEMORANDUM FOR: Executive Officer, Cml C Research and Engineering Command

SUBJECT: Historical Record.

1. The following report for the period 1 July 1953 to 30 September 1953 representing activities of this Division of an historical nature, is submitted in accordance with Chemical Corps Circular No. 17, dated 15 May 1952.

a. Changes of policy affecting operations.

(1) The issuing of Test Directives, as such, by this office and the submission of plans of test based thereon by the Proving Ground has been eliminated. Instead, the requesting agency informally submits to this Headquarters the general scope and requirements of the desired test. If Dagway Proving Ground capability and test scheduling allows, the requesting agency is requested to co-ordinate details of the plan of test directly with Dagway Proving Ground. The requesting agency then formally submits such details to this office for approval. If approved, Dagway Proving Ground is then directed to proceed with the test.

(2) Whenever local air support is required, the testing agency has been authorized to co-ordinate directly with the 6570th Chemical and Ordnance Test Group.

b. Operations.

1 July - In a Memo for Record it is indicated that work on certain BW tests was suspended indefinitely by direction of the Deputy for BW with the statement that AF FY 54 funds have not been programmed for such tests and that Cml C basic study funds cannot be used for tests of AF munitions. Request was made 14 July that Test Directives for certain BW tests be revised in order that completion could be accomplished with Cml C H and D Funds. (CONFIDENTIAL)

2 July - CO, DFG was advised that further testing under certain BW Projects is to be suspended immediately until funds for such test are available to this Command. (RESTRICTED)

6 July - The President, Cml C Board, was advised that the responsibility for testing of the 6x6, 2 1/2 ton cargo truck has been transferred to the Cml C Training Command due to de-activation of ERG and that in the future the Board will co-ordinate test plans with the Training Command. (RESTRICTED)

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REC. S-2425(53)

Edgewood Arsenal, Maryland
CBDCOM Historical Office
Higher Command Room
File Cabinet # 6 Drawer # 1
File Name: Historical Reports Jul - Sep 53
R+E Command

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- 8 July - The CO, DFG was requested to take necessary action to insure that the M18 Smoke Grenade, VS is tested surveillance-wise at all 3 environmental test sites, and was also advised that this item now scheduled for operational test at the Tropic Site should be transferred to surveillance testing. (RESTRICTED)
- 9 July - The CO, DFG, was advised that the Sanitary Engineering Branch of Engineering Research and Development Laboratories, Fort Belvoir, Virginia, requested that test on Operation SALTY DOG should start at DFG on or about 15 July, and that funds will be provided as soon as the Proving Ground estimates are received by this office. (UNCLASSIFIED)
- 9 July - The CO, DFG, forwarded information indicating that certain difficulties are being experienced in the current Cml C Construction Program at Big Delta, Alaska, and that because of possible delays due to land withdrawal, consideration should be given to dividing the program into two separate parts, each to be contracted separately. (UNCLASSIFIED)
- 13 July - In a Memo for Record, it was indicated by the RW-NTM Division that ORL wanted to conduct certain trials at DFG with the E 117 Incendiary Cluster. This office advised that a letter request is required which in turn would be forwarded to DFG with the proper service order to cover support costs. (UNCLASSIFIED)
- 14 July - In a conference held 8 July, attended by representatives from the RW-NTM Division and the Comptroller's Office on the request for administrative support from DFG, it was decided that the requirements of RECOM Comptroller Instruction No. 60-2 could be complied with if DFG would supply the Comptroller with an estimate of the funds required to cover the support furnished by the Proving Ground. The Comptroller would then issue a Service Order for the amount estimated which would be forwarded to DFG by the Proving Ground Division. (UNCLASSIFIED)
- 17 July - This office advised the Chief Signal Officer that the Cml C Winter Program at the Army Chemical Training Center, Big Delta, Alaska, will be limited during FY 54 to the Environmental Evaluation of Cml C non-toxic munitions and equipment and that the meteorological data already requested is necessary to support this Program. (RESTRICTED)
- 21 July - A Memo for File indicated that the RECOM Deputies did not feel that there is a requirement for either Non-Toxic or Toxic Tests at Fort Churchill since a Winter Program has already been set up to be conducted at Big Delta, Alaska, and Suffield Experimental Station in Canada. Accordingly, Lt. Colonel V. F. LaPiana, Cml C, was advised that the R & E Command had no requirement for personnel spaces at Fort Churchill for the Winter CY 53-54. (RESTRICTED)

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- 23 July - This office submitted to the Chief Chemical Officer a complete justification for the MCA Program for the Cml C at Yuma Test Station. Request and justification for this construction had been previously submitted but not included in any construction program prior to FY 54. A telephone request for this new justification for the building program was given 13 July 1953 by Colonel Tieman, G-4. (RESTRICTED)
- 24 July - A conference was held 23 July in Building 1 on the HVAR Rocket Test and attended by representatives of RECOM and CRL. It was indicated that because of safety precautions, USAF will not permit the test flying of the HVAR Rocket at the Army Chemical Center. It was therefore suggested that the Proving Ground Division provide a breakdown of the cost for test of this rocket at DFG to determine dosage area coverage as a function of time to include total dosage and to provide the cost for conduct of this test, including personnel and facilities at DFG. Aircraft, munitions and agent to be supplied by CRL. (RESTRICTED)
- 27-31 July - Mr. Arthur Hilsenrod, this office, visited DFG to assist in the Environmental Test Program, explore the status of the Meteorological Program and become familiar with DFG operations. It was observed that the Cml C Test Team at Yuma Test Station needs a laboratory more than anything else, and that the Smoke and Flame Evaluation Program was progressing very slowly. The Signal Corps study for meteorological telemetering network was brought to the attention of the proper officials and their reaction was that a radio telemetering system was preferred to a land wire metering system. (RESTRICTED)
- 28 July - This office advised the Chief, R&E Office, R&E Com that this office had strongly recommended approval of adequate fire and crash facilities at DFG Air Field, and that the priority for establishment of certain facilities should be up-graded to meet the minimum requirements as stated in Air Force Regulation 92-4. (RESTRICTED)
- 28 July - A meeting was held in the office of the CO, Army Chemical Center, Maryland, to determine the necessary repairs on the local runway. It was felt that immediate action is required to resurface the runway since the Group Commander of the Chemical and Ordnance Test Group has condemned the strip for operation of jet aircraft. This action was taken after considerable damage to one jet engine. It was also felt that maintenance of this runway was needed for some time, but no action was taken because no agreement was reached on what was required and the best method of repairing it, considering the cost and mission for future expansion. As a result of this action, the runway

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has been closed for jet aircraft operation, and in the future it may be necessary to restrict the operation of other type aircraft. The ORL test work has been curtailed and it is concluded that to continue the Chemical Corps Development Programs at the Army Chemical Center, it will be necessary to make repairs of this runway. (RESTRICTED)

- 29 July - The Chemical Corps Medical Laboratories, A Cml C, advised this office that requirements for volunteers are so heavy for current work that the Medical Laboratories cannot supply subjects required for tests. Volunteers will have to be recruited from agencies other than these laboratories. (RESTRICTED)
- 31 July - The CO, DFG, was directed to suspend test operations on BW 1-54 to place additional emphasis on AIRFLOW AND PERSISTENCY work. (UNCLASSIFIED)
- 4 August - This office was advised by Lt. Colonel W. W. Stone, Jr., DFG, that during the discussions between officials at DFG, Colonel Moree and Dr. McCall of ORD, it was indicated that a conference was essential concerning the Cml C Anti-Crop Program, to consider the elimination of certain gaps in the current program. Current proposals for the early establishment of the most suitable final items and a classification of doctrine and plans were needed. In accordance with Colonel Moree's request, a suggested outline of the proposed conference was submitted. (SECRET)
- 4 August - The CO, DFG, was advised that certain specified equipment was requisitioned for Big Delta at a time when it was planned to conduct toxic field tests at that station. Since it is no longer feasible to conduct such tests at Big Delta during FY 54 because of lack of facilities, request has been made to proper authority to conduct these tests at Suffield Experimental Station, Canada. (UNCLASSIFIED)
- 7 August - The CO, Cml C Engineering Agency was advised that in accordance with its request, periodic surveillance and operational reports will be furnished that Agency from this Command and that samples of defective material will be made available to the agency provided a need is indicated that such samples are available. (UNCLASSIFIED)
- 12 August - In a telecon with the Materiel Command Environmental Surveillance Representative, the following procedures were tentatively agreed upon in carrying out user procurement tests on experimental items at control and environmental test sites. The Materiel Command, Environmental Surveillance Representative will:

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1. Supervise control tests to be conducted at the Army Chemical Center in the same manner that items in control are tested in the Environmental Evaluation Program.
2. Comment and approve plans of test drafted by DEG.
3. Co-ordinate plans of test with the Chemical Corps Board. (UNCLASSIFIED)

12 August - This office was advised by the Cml C Biological Lab that the Biological Bomb, 1 1/2 pound B99 is being developed by Arthur D. Little, Inc., of Cambridge, Mass., and that development of the munition has reached the stage where information is required on the ballistic performance of the unit when released from a cluster. Previous cluster trials at Holloman Air Force Base and at DFG demonstrated deficiencies in external ballistic design. The contractor has redesigned the external ballistic features and it is now necessary to make cluster drop trials of the modified units to demonstrate the adequacy of the changes before continuing full scale drop tests. (SECRET)

17 August - A letter to the CO, DFG, indicated that G-4 advised the CO, U.S. Army, Caribbean, Fort Amador, Panama Canal Zone that the Army will be unable to establish a Tropic Test Station in the Panama Canal Zone at the present time and that co-ordination with the Navy is desirable. (UNCLASSIFIED)

17 August - The Commander, Air Proving Ground Command, Eglin Air Force Base, Florida, was advised that at this time the Development Division of the Cml C Chemical and Radiological Laboratory can predict only one firm requirement for use of the climatic hanger for a period of approximately 3 weeks during the second quarter of FY 54. He was also advised that additional future work loads cannot be accurately predicted at the present time. However, it is estimated that the use of the climatic hanger will be requested an average of one week per quarter through FY 57. Tests involved will deal generally with Non-Toxic materials and quarters for approximately 3 Chemical Corps representatives will be required. (CONFIDENTIAL)

18 August - The Director, Cml C Biological Laboratories, Camp Detrick, was advised that it will be necessary to make arrangements for aircraft loading details and that when it is not practical to send loading personnel from Camp Detrick to Aberdeen along with the convoy, the requesting agency will be responsible for arranging the necessary loading detail from the Army Chemical Center. (RESTRICTED)

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- 19 August - The CO, DFG, was directed to submit a detailed plan or test to determine the feasibility and effectiveness of employing 105 mm and 155 mm shell, mustard filled in sub-freezing temperatures when the filling is frozen. (SECRET)
- 20 August - The CO, DFG was advised that the Winter Test Program for FY 54 had been revised in accordance with the directions from the office of the Chief Chemical Officer with additional revisions by RW-NTM and CW Divisions, and plans for this program were submitted accordingly. (RESTRICTED)
- 24 August - The CO, DFG, was advised that it is anticipated that coordination with Chemical Corps Materiel Command, Chemical Corps Board and Cml C Engineering Agency will become standard procedure on operational suitability and environmental evaluation tests involving experimental items obtained under the user test procurement phase of development. Certain phases of tests beyond the capabilities of the Environmental Test Teams may be conducted at either Army Chemical Center or DFG upon proper coordination with the interested organization. (RESTRICTED)
- 25 August - This office suggested to the Chief, Signal Officer D/A that the men selected for the Winter Safari operation be assigned to the Signal Corps Detachment at DFG for a limited period of time. The Proving Ground will make the necessary arrangements to have the men on TDY at Suffield Experimental Station, Alberta, Canada. (UNCLASSIFIED)
- 27 August - In a letter to the CO, DFG, he was advised that there is a requirement for the Chemical Corps to develop the HD Rocket and that to fulfill this requirement, the T165 and T166 Rockets were designed. The T165 Rocket is made with a low agent burster ratio to produce an aerosol, whereas the T166 is made with a high burster ratio to give liquid ground contamination upon bursting. In order that one, or both of these rockets may be adopted, comparative field testing of these rockets is necessary. (CONFIDENTIAL)
- 28 August - In a Memo for Record it was indicated that a discussion was held on 27 August at the office of the Chemical Corps Board on specific objectives to be determined in carrying out the winter test directives from the Chief Chemical Officer on liquid mustard. (SECRET)
- 31 August - The CO, CRL was advised by this office of the desired objectives for the conduct of the test of liquid mustard during the winter of FY 54. A plan of test was requested to include the use of human subjects to be forwarded to this office by 1 October 53 to allow time to obtain the approval of the Secretary of the Army. (SECRET)

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- 4 September - As a result of a report of visit by Dr. Cairns to DFG and a directive from Chief, R&D Division, D/A, containing certain specific actions, the Chief Chemical Officer was advised that the Cml C R&E Command had rushed preparation of a comprehensive test program and effected a change in the method of programming and scheduling tests. The new methods are designed to cause the Chemical Corps Test Program to be of sufficient strength and vitality and in the proper position to pull items through the development program with the greatest possible rapidity. It is felt that these new procedures will accomplish the desires of Dr. Cairns and General Nichols. (RESTRICTED)
- 4 September - The CO, DEG, was advised that the Chief Chemical Officer has directed the Commanding General of RECOM to fuse the shell used in Test CW6-54 with a VF fuse set to burst at a height which will insure a major part of the gas cloud reaching the ground almost immediately at the time of burst and to insure that the effect on the target is a non-persistent one. The program as outlined is considered necessary in order to take a positive approach on General Bullanes' directive. (CONFIDENTIAL)
- 16 September - A Memo for Record indicated that CRL has requested that the responsibility for the Liquid Mustard Test be transferred to Medical Laboratories. In a discussion with the deputies for TCW and RW-NIM Divisions, it was resolved that the primary objective of this test is to determine which mustard mixture is the most lethal down to a temperature of 0°F and that the use of human volunteers for test and evaluation purposes was merely a means of assessing the various mustard mixtures and not the primary objective. It was therefore decided that the responsibility for conduct of this test remain with CRL, with the cooperation of Medical Laboratories where necessary. CRL and Med Labs were informed of this decision. (SECRET)
- 18 September - Chief, P&E Office, was presented with further emphasis and justification for the project on "Water Supply Line" at DFG. The operation of Baker Area at DFG is essential to the interests of National Defense in that it produces information vital to planning defense of this country against BW. Engineers and consultants have stated definitely that the present water supply will completely curtail operations at this installation within the next two years and possibly resulting in a shut-down within 18 months, thereby halting the flow of vital BW defense data. He was further advised that with a lead time necessary in construction of this water line, it is essential that this program be implemented immediately in order that continuous operations can be conducted in the Baker Area. (UNCLASSIFIED)

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22 September - The Deputy RW-NFM Division was advised by this office that a Board has been designated to determine the Army Chemical Center requirements for the School Field Test Areas. To implement this objective, requests were sent to all organizations at Army Chemical Center which might have the need for such facilities to review and comment on the reliability and validity of the data forwarded concerning such a test facility.
(CONFIDENTIAL)

28 September - Requested the Chief, Eng. Div., to furnish this office the knowledge requirements and other information pertaining to all end items under development in the R&D Program. A Chemical Corps Test Program work sheet was forwarded with a sample list of partial requirements indicating the type of information desired from the developing agencies. (UNCLASSIFIED)

30 September - Chief, Engineering Div., was advised that Colonel Hammond, Deputy CG, DFG, is planning to visit Big Delta with the aim of ironing out difficulties in connection with numerous administrative problems which have arisen there and which, in the opinion of the CG, DFG, are seriously interfering with the Chemical Corps test team's accomplishment of its mission.
(UNCLASSIFIED)

e. Personnel action:

(1) Colonel Wm. J. Allen, Jr. was transferred to Proving Ground Division as Chief.

(2) Lt Colonel Zim E. Lawhon was appointed Deputy Chief.

(3) Mr. H. E. Norton was appointed Civilian Assistant.

(4) Mr. Arthur Hilsenrod was appointed Test Engineer, Operations Branch.

(5) Miss Lucile Dalton was transferred from CCTC office as Stenographer, Planning Branch.

(6) Mrs. Florence Taney, Stenographer, resigned.

W. J. Allen, Jr.
Wm. J. Allen, Jr.
Colonel, G-1 C
Chief, Proving Ground Division

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