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HEADQUARTERS
CHEMICAL CORPS RESEARCH AND ENGINEERING COMMAND
Office of the Commanding General
Army Chemical Center, Maryland

DNA1.950224.037

OWLRE-17D-1 (1-12-30-002)

15 June 1953

SUBJECT: Reduction of Funds in the AW Field

TO: Chief Chemical Officer
Department of the Army
Washington 25, D. C.

1. On 10 June 1953, this Headquarters was notified, through informal channels, that funds for the FY 1954 Atomic Warfare Operations (AW) had been reduced by action of the Senior Review Board, Department of the Army as shown below:

	<u>Planned Budget</u>	<u>Reduced Budget</u>
AW-4, Radiological Warfare Munitions	\$3,389,000	\$100,000
AW-5a, Detection	180,000	30,000
AW-5b, Protection	365,000	90,000
AW-5c, Decontamination	336,000	0
AW-8, RW Agents	60,000	0
TOTAL	\$4,330,000	\$220,000

2. It is believed that the decision to make such drastic reductions was arrived at hastily and with complete disregard of the present status of the AW program. The decision fails to consider the effect such a cut will have on funds currently obligated, work now in progress, personnel, and continued research and development effort in this field. Furthermore, it is believed the reductions in the offensive RW field were inadvertently reflected in the defensive AW program with the result that research and development effort in this field will be seriously curtailed. Shown, in attached inclosure, are the immediate effects this reduction will have on the current program.

3. It is not understood what course of action, as far as the RW program is concerned, was conceived by those who made the proposed reduction. It should be obvious, however, that the indicated funding will provide only for an abrupt termination of the program.

4. It is well known that an evaluation of Radiological Warfare is currently being conducted by the WSEG. This report will be issued in the very near future and will be considered by the Joint Chiefs of Staff and the Research and Development Board. Such consideration will result in a firm statement of requirements, based upon an overall judgement of the value of the weapons system and the impact upon the

No Defense Nuclear Agency Classified Information. Coordinate with ARMY Before Declassification

Authority: ISTS Date: 2/1/65

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW

DETERMINATION (CIRCLE NUMBER(S))

1. CLASSIFICATION RETAINED

2. CLASSIFICATION CHANGED TO: CONFIDENTIAL

3. CONTAINS NO DOE CLASSIFIED INFO

4. COORDINATE WITH: AW

5. CLASSIFICATION CANCELLED

6. CLASSIFIED INFO BRACKETED

1ST REVIEWER-DATE: MM/YY

AUTHORITY: ADOC ENDC DADD

NAME: MM/YY

2ND REVIEWER-DATE: MM/YY

AUTHORITY: ADD

NAME:

Declassified by DNA, Chief, ISTS
and DA OAS STRA Mump 2/9/95
with INCLOSURE.
Date 2/9/95

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CMLFE-PWD-1

15 June 1953

SUBJECT: Reduction of Funds in the AW Field

nation economy. In view of the above, the FY 54 AW program should consider the economic utilization of currently planned and obligated resources to provide for an orderly termination of the work which had previously been a requirement of the WSWG. The future program should also provide for an orderly transition from a program based on the WSWG requirement to a program responsive to the ultimate desires of the Joint Chiefs of Staff. The proposed fund cut will result in the loss of services of skilled technical personnel, contractors and other organizations, which cannot easily be recouped. A period of one to three years will be required to reestablish our present position if FY 54 funding program remains as proposed.

5. A firm and immediate decision concerning the proposed fund reduction is requested within the next several days. If the intent is to terminate the Radiological Warfare program, it should be so stated. In this case, the limited funds approved will be used for that purpose. If the termination is not intended, the proposed fund reduction must be reviewed in the light of paragraph 4 above and adequate funds provided to maintain an effective and realistic program.

1 Incl:
As cited in Par. 2

WILLIAM M. CREASY
Brigadier General, USA
Commanding

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1. Effect of fund reduction on AW-4 and AW-3:

a. Army Chemical Center, Md. Effect on Munitions Development Program.

(1) Contract with Greer Hydraulics Inc., for development and fabrication of remote control handling and filling equipment and installation at Dugway Proving Ground and Army Chemical Center will be allowed to run to completion in December and deliveries of equipment will be accepted. Fabrication of equipment has progressed to such a stage that termination will not affect any saving. Cost of termination and renegotiation would probably exceed original contract price.

(a) Approximately \$1,000,000 worth of remote control manipulators and other munition handling and filling equipment will have been purchased under this contract by the end of the year. No further utilization of any of this equipment is possible, with the funding program now directed and maintenance, to prevent deterioration, can not be provided.

(2) Contract with Aircraft Armaments Inc. for fabrication of a complete munition system, less component bombs, will be allowed to run to completion in October 1953. Cost of immediate termination and renegotiation would probably exceed present contract price. Utilization of this system in a test program must be cancelled because of lack of funds. Cost \$275,000 already funded.

(3) Fabrication of 2100 functional, barometric fuse munitions, by Edgewood Arsenal must be stopped immediately. Continued development, improvement and test of these munitions will no longer be possible. Approximately \$500,000 has been spent to date to bring munition development to present stage. Contract for fabrication of tools and dies for above munitions, recently negotiated, must be immediately terminated. Value of contract approximately \$25,000.

(4) Contract for fabrication of lead shipping containers for fall 1953 tests must be immediately terminated. Value of contract approximately \$30,000.

(5) Research and development program for handling and filling equipment will be stopped immediately because of insufficient funds to maintain technical personnel at Army Chemical Center.

(6) All work and proposed contract for the design criteria of a production handling and filling plant will be stopped immediately.

(7) Studies presently being conducted by Army Chemical Center personnel on the ground delivery of W agents will be stopped because of mandatory reduction of technical personnel. Contract being negotiated for a design criteria study will be permitted to continue. Value approximately \$35,000, duration seven months.

(8) All recent efforts on W agents will be stopped.

(9) Further studies on heat and cooling problems will be stopped.

(10) Dispersion studies and drop tests of aerial munitions at the Great Salt Lake Carrington range will be stopped. This work, although conducted solely under the BW program, is directly applicable to the current BW munitions program.

b. Army Chemical Center - Effect on Personnel.

(1) A reduction of force in AN-4 (offensive) is mandatory. Planned reduction is from present level of 30 civilians, 3 officers and 15 enlisted scientific professional personnel to 6 civilians, 3 officers and 1 enlisted man. Civilian personnel released will range from design engineers with the grade of GS-12 to clerk typists with the grade of GS-3.

c. Egway Proving Ground - Effect on Test Program.

(1) University of Utah contract for operation and maintenance of Able Area will be affected. No firm decision can be made as to manner of handling this contract until discussions have been held with Egway Proving Ground, the University of Utah, and the Chemical Corps Research Procurement Agency. However, the following tentative plans are proposed: (a) Maintain the contract at its present level until its expiration date in November this year. It is questionable that full utilization can be made of the contract because of necessary reduction in tests in which the University was scheduled to participate. (b) Terminate the contract immediately. In this event the Chemical Corps will lose four months service from the contract and the balance of unexpended funds will revert to the Treasury. Accordingly, it will be necessary to maintain Able Area in standby condition with military personnel if available, otherwise it must be allowed to rapidly deteriorate. (c) Attempt to renegotiate the contract with the University at reduced scope, for maintenance purposes only. Extension of contract time could thus be made with existing contract funds. It is doubtful that the University will accept such a limited contract.

(2) The 2-cluster filling and handling test and shielding and scattering experiments scheduled for August are dependent on final decision made concerning the University of Utah contract. In the event of immediate termination, or renegotiation at reduced scope, the August test will be cancelled. If the contract is maintained at its present level it may be possible to conduct the August test, provided further analysis determines that cost of transportation of agent by Technical Escort Detachment, cost of travel, and salaries of Government personnel necessary for assistance in conducting the test will not exceed available funds. At this time, it is highly questionable whether the August test can be conducted at all, if this reduced funding is effected.

(3) The six-cluster test and decontamination studies planned for November will be cancelled.

(4) All other tests, such as in-flight heat test, air-scattering experiments, individual munitions tests, and tests utilizing the first

test of zirconium-niobium agent will be cancelled.

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(5) To date, approximately \$3,000,000 have been spent on construction of Able Area and development of related handling and filling equipment. Tests scheduled for the fall of 1953 would have made the first full scale utilization of this facility. This will no longer be possible and the facility will have to be closed down and maintained at the lowest level possible.

d. Lugway Proving Ground - Effect on Personnel.

(1) All civilian Government employees connected with the TW program will be released from employment. Number of employees affected is not known at this time. Military personnel will be maintained until clarification of the program is definitely established.

e. Atomic Energy Commission - Effect on agent irradiation and other Cooperative Effort.

(1) Brookhaven National Laboratories. First batch of agent presently in the pile for the six-cluster test must be pushed out and agent disposed of. This will mean a loss of approximately 25,000 to 50,000 curies as well as the agent and cartridges, plus the cost of shipping material, probably to Lugway, for disposal. A second batch of agent is prepared but will not be shipped to Brookhaven for irradiation.

(2) Oak Ridge National Laboratories. Agent for the 2-cluster drop test is already irradiated and out of the pile. Cancellation of this test represents a loss of approximately 10,000 curies of agent. Agent will have to be disposed of, probably at Lugway Proving Ground. It is difficult to estimate the magnitude of this loss, however, it probably runs into many thousands of dollars, plus the waste of valuable neutrons that could have been used for other productive purposes.

(3) Knolls Atomic Power Laboratory. Knolls is presently working on a pilot plant process for separation of zirconium-niobium from gross fission products and are planning first shipment of purified agent to the Chemical Corps in the fall of this year. The requirement for this agent will be cancelled and Knolls will have to stop their experimental work since the Chemical Corps will be unable to utilize any material furnished.

f. Other Effects.

(1) Work currently being conducted by the Air Force at Wright Air Development Center, Ohio, on the modification of B-47-B aircraft, to carry the RW munition system, will be terminated. The air Force has limited funds to conduct their work under the present RW program, and will have to direct their funds to other profitable uses when the program is drastically reduced.

(2) Schedule for pickup, and shipment of agent from various AEC installation to Lugway Proving Ground has been established with the Technical Escort Detachment, Army Chemical Center. This schedule will have to be cancelled and new arrangements made for disposal of agent.

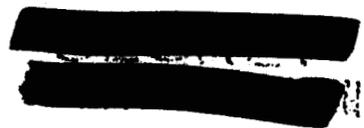
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(3) Design Criteria for a Munitions Loading Plant has been cancelled.

2. Effect of Fund Reduction on AW-5:

The impact of the curtailed defensive budget is most seriously felt in AW-5c, "Decontamination", which has been left entirely without funds. That atomic weapons will be utilized in the next general war, by both ourselves and the enemy, is an inescapable conclusion. Radiological contamination resulting from such warfare, especially in its tactical concept, is inevitable. Failure to make preparations to cope with this phenomenon may result in serious consequences. The Chemical Corps research and development program in radiological decontamination has proceeded logically and rapidly to the phase in which all laboratory and isolated field experiments conducted heretofore, were to culminate, in the fall of 1953, in a comprehensive detailed study of the decontamination of a target complex. It has been stated and restated that this is the last essential link in the chain of events leading to development of doctrine for decontamination. Failure to carry through this last, most important phase, leaves us in a position far short of realizing an important defensive goal.

a. The joint CmC-AEC project at Oak Ridge National Laboratories, on the development of basic principles and equipment for submicron particle generation and measurement, will be completed and not be renewed. The direct application of this work was to develop instrumentation to resolve the questions as to the presence of submicron particles associated with atomic bomb detonations, and the efficiency of standard filter materials in resisting penetration of these particles. These questions will remain unresolved.

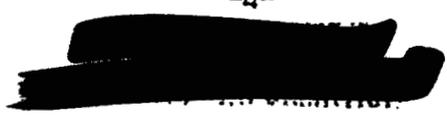
b. Shielding studies, as performed for OEC in Operation CORFA, will be stopped.

c. Contract with Tracerlab to plan large scale Dugway Proving Ground decontamination program on RW target complex, in fall 1953, will proceed to completion, with modified scope.

d. Requirement for construction of RW target complex at Dugway Proving Ground, will be withdrawn. Lack of an offensive RW program deprives the decontamination effort of the agents and munitions for effecting contamination

e. Instrumentation development for Research and Development purposes, in support of AW-4 and AW-5c will terminate upon completion of current contracts.

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