SUBJECT: Chemical Corps Project Program for 1950

TO: Chairman, Chemical Corps Technical Committee

1. References:
   a. CCTC Item 1882, 14 May 1949
   b. RDB 169/1, Classification System for the Master Plan, 23 Dec 1948
   c. RDB 169/3, Master Plan of Research and Development, 24 Feb 1949
   d. Plan for Evaluation of Chemical Corps 1950 Research and Development Program, April 1949
   e. SR 705-5-1, 17 Mar 1949
   f. SR 705-5-20, 17 Mar 1949
   g. Memorandum (s), QMLNR-F-2, R&E Div, OCCmlC, 12 May 49, "Chemical Corps Research and Development Project Program for FY 1950", to Secy, CCTC, w/2 Incds.

2. Discussion:
   a. Reference a. identifies the CCTC action which approved the Chemical Corps Project Program for FY 1949 which, as originally approved, consisted of 208 projects classified no higher than Secret. Subsequent to the approval action by reference a., new projects were added and others terminated in accordance with changing needs and requirements as reflected in action coordinated through this Committee. As the result of continuous revision the 1949 program as presently constituted consists of 235 projects exclusive of those accorded special security classification.

   b. In order to provide a timely and periodic review of Chemical Corps activity as stipulated by paragraph 12. of SR 705-5-1 (ref. a.) and reappraise project priorities as required by SR 705-5-20 (ref. f.), R&E Div, OCCmlC has prepared the draft of the 1950 project program attached herewith as Inclosure 2. In order that this draft may be evaluated with respect to the current 1949 program and so that record and approval action for both old and new projects may be facilitated, the 1949-50 Project Program Summary has been prepared and is attached herewith as Inclosure 1. This summary lists all projects now approved with appropriate disposition action on each together with all new projects proposed for establishment at this time.

   c. In connection with the review of the program for the next fiscal year, it is believed that a brief explanation of the basis of program evaluation is pertinent to full consideration of the action proposed in this report. In this respect the RDB directives, references b. and e., were considered of major importance in providing guidance incorporating
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<th>Project Title</th>
<th>Gas Bomb for G Series Filling</th>
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<tr>
<td>Basic Field or Subject</td>
<td>Chemical Munitions</td>
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<td>9. Directing Agency</td>
<td>Technical Command</td>
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<td>10. Requesting Agency</td>
<td>Chemical Corps</td>
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<td>11. Participation and/or Coordination</td>
<td>4-04-15-07, 4-08-03-05</td>
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<td>12. Contractor and/or Laboratory</td>
<td>Munitions Division, Air Force</td>
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<td>13. Related Projects</td>
<td>Munitions Branch</td>
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<td>14. Date Approved</td>
<td>22 July 1947, CCTC Item 1760</td>
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<td>15. Priority</td>
<td>1-C</td>
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Requirement and/or Justification:

(b)(2) HIGH

Brief of Project and Objective:

(b)(2) HIGH

(b)(2) HIGH
GAS BOMB FOR G SERIES FILLING

a. Results Prior to 1949:

(b)(3): 10 USC 130

b. 1949 Results:

(b)(3): 10 USC 130

c. 1950 Plan:

(b)(3): 10 USC 130
The search for the most effective agents in this series will be conducted as follows: Analogs and compounds similar in structure will be synthesized for toxicity evaluation by the Medical Division. On those agents warranting further study, research will be continued and laboratory process development studies made in order to develop methods of synthesis which are practical and suitable for pilot-plant use.

Methods for the detection and estimation of these agents, previously a part of this project, will be reported under project 4-08-03-02 in future.

Their physical constants, corrosive effect on metals, and stability in storage and in the presence of moisture will be investigated as aids in selecting the best agent for standardization. Work on physical constants will be reported under project 4-08-03-01 and results obtained on corrosion will be submitted under project 4-93-14-01.
The object of this project is to develop a manufacturing technique together with the necessary equipment and operating directives for designing a plant capable of producing GB in the quantities necessary for use in military operations.
GB PLANT, PROCESS DEVELOPMENT

4-22-03-02

(a) Results Prior to 1949: Based on a process developed in the laboratory, a pilot plant was built and operated step-wise to produce about 400 lb. of GB. During the operation of the pilot plant, minor difficulties, chiefly pertaining to equipment corrosion, were encountered.

(b) 1949 Results:

1. (2) HIGH

(c) 1950 Plan:

1. Continue the operation of the pilot plant and convert the available supply of intermediates to GB. Obtain all necessary data for the preparation of complete plant designs for Steps IV and V.

2. Based on the work and recommendations of the contractor, and results obtained at Army Chemical Center, determine the advisability of conducting pilot plant development of the aluminum chloride process to replace the first three steps of the 5-step process.

(d) Changes in Data for JRDB Form 1A: None.