

FEB-14-2003 06:49

LEGAL OFFICE SBCCOM

410 436 2534 P.27

REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PROJECT MANAGER CLOTHING & INDIVIDUAL EQUIPMENT
14050 DAWSON BEACH ROAD
WOODBRIIDGE, VA 22191-1419

AMCPM-CIE-T

15 APR 1988

MEMORANDUM FOR:

Commander, U.S. Army Test and Evaluation Command,
ATTN: AMSTE-EV-O/AMSTE-TE-T, Aberdeen Proving Ground, MD
21005-5000

Commander, U.S. Army Training and Doctrine Command,
ATTN: ATCD-SE, Fort Monroe, VA 23651-5001

Commandant, U.S. Army Chemical School, ATTN: ATZN-CM-CT,
Fort McClellan, AL 36205

SUBJECT: SN-CIE Mask Drinking System (MDS)

1. As you are aware, the MDS SN-CIE was presented to 7 Apr 88 ACEB and will be forwarded shortly to the Chief of Staff, Army (CSA) for final Concept Approval.
2. Funding for MDS was provided by specific language in the FY88 Joint Appropriations Bill. The line item language provided \$600K to develop MDS and stated that a non-developmental approach must be followed. The original SN-CIE did not include an NDI approach in Parts II/III (enclosure 1). Therefore, NRDEC has rewritten Parts II/III (enclosure 2) to include an NDI approach (to be followed by NRDEC RDT&E only if NDI is unsuccessful).
3. NRDEC is ready to begin. Request TESM members review Part III (TEMP) at enclosure 2. Comments should be made in line-in/line-out format, signature sheet completed, and returned to PM-CIE by NLT 29 Apr 88. If there are significant changes which must be made, request NRDEC (Pat Snow, AUTOVON 256-5434) and PM-CIE (LTC Gidley, AUTOVON 356-2406) be notified.
4. We are on a "fast track" with MDS and would appreciate a quick turn-around on this matter.

2 Encls

ROBERT R. SARRATT

Colonel, GS

Project Manager, Clothing
and Individual Equipment

Copy

STRNC-ICCC (70)

SUBJECT: Minutes of the Mask Drinking System (MDS) Program Review held at Natick on 3 Mar 89

human factors, chemical agent and protection factor (corn oil) testing. Due to the fact that the MDS is an NDI development, the existing prototype must meet all requirements established in Part I of the SN-CIE in order to proceed to Technical Test/User Test (TT/UT). Development testing was designed as a prescreening of the system prior to TT/UT. Mr. Don Davio, MDS Project Officer, citing observation of the ARIEM testing and familiarity with the MDS, provided what he regarded as anticipated findings of the yet to be performed development tests. (In one particular instance the contractor, MSA, provided documentation showing the agent resistance properties of certain material(s) used in the MDS to be inconsistent with the requirement stated in the SN-CIE.) The review board decided that enough evidence had been, and/or could be, assembled to disapprove the current MDS prototype before any further development testing commenced. This action would prevent the expenditure of substantial funds and time in testing a system of known deficiencies and utilize them in a more effective and productive manner.

5. CONCLUSIONS:

MASK DRINKING SYSTEM-INTERIM

a. The review board has concluded that the MDS has shown enough merit to continue with development on a broader scale and with more defined guidelines. The following restructured MDS Program Development Plan is the outcome of this program review.

(1) The current MDS prototype will not satisfy the requirements set forth in the SN-CIE.

(2) The existing NDI development effort will be reclassified to a "modified NDI development". The current MDS prototype will be submitted for development testing as specified in enclosure 1, using ONLY the 2 quart canteen. If, upon successful completion of the development phase and ensuing TT/UT testing, the modified NDI MDS is approved for Type Classification (TC), it will be issued on an interim basis for use in tropic and desert environments with the 2 quart canteen.

(3) The preliminary MDS-Interim Program Development Plan is as follows:

- o Natick Development Testing (with the recommendations and concurrence of the review board)
- o Modification of the current NDI MDS prototype as required by the findings of development testing
- o TT/UT
- o TC

STRNC-ICCC (70)


SUBJECT: Minutes of the Mask Drinking System (MDS) Program Review held at Natick on 3 Mar 89

MASK DRINKING SYSTEM

✓ b. The establishment of an RDT&E effort will begin immediately and run concurrently with the MDS-Interim program. The RDT&E effort will produce a mask drinking system which will be functional with the entire inventory of canteens, both rigid and soft walled, possessing an M1 NBC canteen cap. The product of this engineering effort will effectively become known as the MASK DRINKING SYSTEM (MDS).

6. ACTION ITEM:

Natick to develop a Program Management Plan (PMP), including estimated funding, for both MDS-Interim and MDS Program Development Plans. Program Manager-Clothing and Individual Equipment to receive PMP's by 21 Mar 89.


DONALD D. DAVIO
Chemical Engineer,
Chemical Protection Section

3 Encl

1990
OCT - 1990 - NOTICE, determines Wesleyan
MDS-I is proof of principle
justifying Army to take concept for full R&D

AMCPM-CIE

SUBJECT: Type Classification Review Panel (TCRP) for Mask Drinking System - Interim (MDS-I)

7. In accordance with standard practice, upon completion of chemical agent testing, a report was published by CRDEC and evaluation documents prepared (see enclosures 1-5). A preliminary Joint Working Group was held 27 Sep 90 which led to the TCRP on 31 Oct 90. The TECOM Independent Assessment Report (enclosure 2) provides an excellent summary of the varying aspects of the MDS-I evaluation. At enclosure 8, find the results of the MDS-I TCRP cataloged in accordance with the Chemical School requirements. In summary, the MDS-I is (1) not compatible with the standard issue 1 quart canteen or 1 quart steel and (2) does not provide chemical agent protection in worst case field conditions.

8. Despite the above, the TCRP felt that MDS-I still has potential value for use (when further modified) with the 2 quart collapsible canteen and as an item to evaluate the constant connection principle in the "proof of principle" phase of the full solution MDS RDTE. Accordingly, the TCRP recommended the following:

a. Request MSA modify the MDS-I to alleviate the deficiencies found in prior testing and that MSA participate fully in further agent and user testing.

b. Subject MDS-I to User Test to be conducted by the Chemical School in FY91.

c. Submit modified MDS-I to further chemical agent testing in FY91 to resolve unknowns identified by TECOM and OTSG.

d. Initiate RDTE in FY91 for MDS compatible with all canteens - use MDS-I user and agent testing as "proof of principle" for a constant connection device between canteen and mask drinking tube.

e. Reconsider MDS-I application with 2 quart canteen following completion of testing (anticipated 4QFY91) (currently, over 500K 2 quart canteens are in use or on order). If acceptable, funds will be required to procure MDS-I sole source.

9. On 2 Nov 90, PM-CIE received notification from MG Rigby to answer several questions from Mr. Smith and to respond to MSA's questions relevant to the CRDEC Test Report (note: CRDEC Test Report is marked COMPETITION SENSITIVE and has not been released until done so via this memorandum). Responses are required to be briefed to MG Rigby - tentatively 14 Nov 90. At enclosure 9, find responses to these questions.