REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE (DD-MM-YYYY)	**2. REPORT TYPE**	**3. DATES COVERED** *(From - To)*
07-12-2022	Final Draft	

4. TITLE AND SUBTITLE
Test Operations Procedure (TOP) 08-2-068A Small Item Decontamination (SID) Fixture Testing

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S. Army Dugway Proving Ground
West Desert Test Center
(TEDT-DPW)
Dugway, UH 84022-5000

8. PERFORMING ORGANIZATION REPORT NUMBER
TOP 08-2-068A

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
Policy and Standardization Division (CSTE-CI-P)
U.S. Army Test and Evaluation Command
6617 Aberdeen Boulevard
Aberdeen Proving Ground, MD 21005-5001

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)
Same as item 8

12. DISTRIBUTION/AVAILABILITY STATEMENT

Distribution Statement A: Approved for public release; distribution unlimited.

13. SUPPLEMENTARY NOTES

Defense Technical Information Center (DTIC), AD No.:

This TOP supersedes TOP 08-2-068 dated 30 April 2018.

Marginal notations are not used in this revision to identify changes, with respect to the previous issue, due to the extent of the changes.

14. ABSTRACT

This TOP provides basic information to facilitate test planning, conducting, and reporting standardized testing of small items of military equipment, fielded and developmental decontaminants, and fielded and developmental decontamination systems (applicators with or without organic decontaminants).

15. SUBJECT TERMS

Chemical; decontamination; small item decontamination; SID; survivability; decontaminability; agent; simulant; small items

16. SECURITY CLASSIFICATION OF:			**17. LIMITATION OF ABSTRACT**	**18. NUMBER OF PAGES**	**19a. NAME OF RESPONSIBLE PERSON**
a. REPORT	**b. ABSTRACT**	**c. THIS PAGE**			**19b. TELEPHONE NUMBER (**include area code)
Unclassified	Unclassified	Unclassified	SAR	19	

(This page is intentionally blank.)

US ARMY TEST AND EVALUATION COMMAND
TEST OPERATIONS PROCEDURE

*Test Operations Procedure 08-2-068A 7 December 2022
DTIC AD No.

SMALL ITEM DECONTAMINATION (SID) FIXTURE TESTING

Approved for public release; distribution unlimited.

*This TOP supersedes TOP 08-2-068, dated 30 April 2018.

1. SCOPE.

1.1 Background.

a. The Small Item Decontamination (SID) fixture was developed to test decontaminants for decontamination efficacy, decontamination systems for their ability to effectively perform their design functions under operationally relevant environmental conditions, and to perform chemical contamination survivability testing of individual warfighters' equipment and other small items of equipment. Decontamination systems up to 61 centimeters (cm) wide × 91 cm high × 122 cm long can be tested within the SID. Test items up to 51 cm long × 20 cm wide × 15 cm high with a maximum weight of 9.1 kilograms (kg) can be placed in and moved between the modules of the SID for testing.

b. The SID is located in Laboratory 126, Building 4165, West Desert Test Center , U.S. Army Dugway Proving Ground, Utah.

c. The SID is a full glove box fixture that consists of three modules: the Challenge Module (CM), the Decontamination Module (DM), and the Sample Module (SM). Even though the names of the modules imply their function, testing has been conducted using the CM as a preparation/sample area and the contamination and decontamination of test items has been performed in the DM.

d. The SID was verified and validated for use as test and evaluation infrastructure[1**] in 2014 and accredited in 2015 for the Joint Service Equipment Wipe Chemical Efficacy Environment[2] test.

1.2 Purpose.

a. The intent of this Test Operations Procedure (TOP) is to standardize testing of small items of equipment, decontaminants, and decontamination systems (applicators with decontaminants) within the SID fixture.

b. This TOP provides basic information to facilitate planning, conducting, and reporting of testing within the SID fixture. This TOP describes typical facilities, equipment, and procedures used for testing.

c. If requirements or procedures in a program's Capability Development Document or the Capability Production Document contradict procedures in this document, then the capability documents take precedence.

1.3 Limitations.

a. This TOP only provides standard procedures for testing small items of equipment, such as equipment carried by an individual warfighter or removable sensitive equipment.

** Superscript numbers correspond to Appendix B, References.

b. The procedures in the TOP are also limited to the testing of decontamination systems that are 61 cm high × 91 cm wide × 122 cm long or smaller in size.

2. FACILITIES AND INSTRUMENTATION.

2.1 Facilities.

Item	Requirement
Chemical surety laboratory and chemical agent storage facility.	Constructed to ensure safe and secure storage, handling, analysis, and decontamination of chemical agents.
Chemical agent test fixture or chamber.	Constructed to allow testing of small items of equipment deliberately contaminated with chemical agent/simulant in a temperature and humidity controlled environment. The chamber must have sufficient volume to allow free air circulation around the test item. Ability to control temperature and relative humidity (RH) is required.
Fielded decontaminating apparatus, as specified in the concept of operations (CONOPS).	Constructed to decontaminate the test item as part of the test procedure. Must not increase the hazard or degrade safety protocols when used in a laboratory.

2.2 Instrumentation.

These values are minimum requirements. Actual instrumentation may have greater precision, and actual values must be reported.

Parameter	Measuring Device	Permissible Measurement Uncertainty(see NOTE 1)
Air temperature [-20 through 50 °Celsius (C)].	Thermometer with digital recording capability.	± 0.5 °C.
Relative Humidity [RH) 0 through 90 percent].	Humidity probe with digital recording capability.	± 2 percent.

Parameter	Measuring Device	Permissible Measurement Uncertainty(see NOTE 1)
Photographs.	Still color camera.	Adequate resolution to document typical test procedures, details of contamination techniques and contamination density.
Video.	Video color camera.	Adequate resolution and frames/second speed to document typical test procedures, details of contamination techniques and contamination density.
Contamination density or challenge level [grams per square meter (g/m^2)].	Gas chromatograph (GC), high-performance liquid chromatography (HPLC), liquid chromatography (LC), spectrophotometer, or equivalent.	± 15 percent of challenge target.
Dose confirmation samples (g/m^2).	GC, HPLC, LC, spectrophotometer, or equivalent.	± 15 percent of challenge target.
Chemical agent mass from vapor samples [milligrams per cubic meter (mg/m^3)].	MINICAMS®, (OI Analytical, division of OI Corporation, College Station, Texas), GC, HPLC, LC, spectrophotometer, or equivalent.	Instrument must be ± 15 percent of calibration standard.
Chemical agent mass from liquid samples [microgram (µg)/sample area].	GC, HPLC, LC, spectrophotometer, or equivalent.	Instrument must be ± 15 percent of calibration standard.

NOTE1: The permissible measurement uncertainty is the two-standard deviation value for normally distributed instrumentation calibration data. Thus 95 percent of all instrumentation calibration data readings will fall within two standard deviations from the known calibration value.

3. REQUIRED TEST CONDITIONS.

3.1 Documentation.

3.1.1 Familiarization.

a. Potential problem areas must be identified by reviewing records and results of similar tests, if available.

b. Development of a detailed test plan (DTP) requires familiarization with the applicable test planning and requirements documents such as:

(1) Safety release and approval from the authorizing agency (U.S. Army Test and Evaluation Command (ATEC)) to begin testing, if required.

(2) Government and manufacturer's publications, including the current safety data sheets for all materials used in the test.

(3) Program-specific requirements documents: capability development document, system performance specification, system evaluation plan, safety assessment report (SAR), and test directive.

c. Test personnel must familiarize themselves with the relevant standing operating procedures (SOPs) and other procedures for applicability, completeness, and adequacy. These documents will be updated as required.

d. All applicable/available safety documents such as the SAR and health hazard assessments should be reviewed to determine if any safety or health issues require special test protocols.

3.1.2 Environmental Compliance.

a. Test personnel and participants must receive and understand environmental documentation before the test begins.

b. All local, state, and federal regulations will be followed. Appropriate documentation will be prepared, submitted, and approved before testing begins.

3.2 Safety.

Applicable safety SOPs and surety regulations will be reviewed to ensure all test procedures are in compliance.

3.3 Test Planning.

a. This TOP is to be used as a guide in preparing a DTP for use of the SID. The applicable sections of TOPs 08-2-061B[3] and 08-2-060A[4], used in test planning for procedures that will be used inside of the SID modules, will also be reviewed.

b. The test plan will be written before test execution and will incorporate input from test and evaluation subject matter experts. The test plan format can be test-site specific with customer agreement, but the content will address all elements required for test conduct. The following elements must be considered.

(1) The test plan must describe the collection of required data, data reduction, analytical procedures, and reporting procedures.

(2) The test plan must include safety procedures addressing hazard analysis, operations, and decontamination. Safety procedures should provide for a test readiness review before testing begins.

(3) The test plan must define the required challenge level of the agent(s) being disseminated, the trial conditions, analytical limitations, and safety considerations.

c. The procedures described in this TOP may require tailoring to address the particular purpose and requirements for a specific system under test (SUT). Any modifications of these procedures and the specific parameters used must be described in the DTP, along with the rationale.

d. The DTP shall describe the specific test processes to be used, based on factors including the system CONOPS, system requirements, and operational threats for the SUT. These factors should give consideration to the operational conditions which the SUT would be subjected to in the field.

e. When the testing is for chemical and biological contamination survivability (CBCS), representative areas of the test item to be sampled for residual contamination will be selected and identified. If the entire test item/system cannot be contaminated and decontaminated, then representative areas for contamination, decontamination, and sampling will be selected and marked. Additional marks must not be placed within the marked boundaries of the locations to be sampled. Selection of the sample locations will depend on consideration of overall test item size, geometry of the test item, materials of construction, surface texture, presence of joints and crevices, areas handled/touched by system operators, and the likelihood to contribute to producing a vapor or contact hazard. Because of the nature of contact sampling devices, sample locations need to be flat or nearly flat. An appropriate number of such areas will be selected to help assure the statistical validity of the sampling. The test plan will identify and explain the rationale for the areas selected and the statistical and analytical methodology used. The test report will identify any changes from the test plan. Each sample location selected must be described and photographed.

f. Existing system-specific decontamination procedures using fielded decontaminants or developmental decontaminants must be reviewed and incorporated into the planned test as much as possible. Standard decontamination procedures will be developed for the test item, if existing system-specific procedures do not exist. These procedures will take into account the nature of the test item: coupon, component, or whole item of equipment. Before testing begins, rehearsals must be held to familiarize the test team with the functioning of the test item (if applicable), test procedures, and data requirements. The team must practice until challenge application,

decontamination, and sampling become routine. The test items used during the actual test must not be used in rehearsals unless they are the only items available. One or more pilot trials must be performed to give operators an opportunity to become proficient with the test procedures.

g. One of the most important considerations in the test planning process involves the appropriate use of the SID fixture. The three modules (CM, DM, and SM) are not equivalent in capabilities. The CM and DM have heating and cooling systems. The SM only operates at laboratory ambient conditions. The following concerns must be addressed and fully described in the DTP:

(1) Which module to use for introduction of the challenge for application, decontamination operations, and sampling procedures.

(2) Planning for movement of test materials (especially chemical agent) between modules.

(3) Placement of materials for multiple trials to minimize opening exterior doors.

(4) Removing materials for waste disposal.

(5) Number of individuals required to perform procedures.

3.4 Simulant Selection.

If simulants are required, selection should be conducted in accordance with (IAW) TOP 08-2-196[5]. An agent-simulant technology relationship must be established IAW TOP 08-2-140[6]. It is important to remember that simulant characteristics for decontamination testing are very different than characteristics for other types of chemical testing (e.g., detector, individual protection).

3.5 Experimental Planning and Design.

When applied correctly, design of experiments (DOE) techniques provide the most efficient way to test. Multiple factors are varied simultaneously in a specific, systematic manner that is mathematically sound. This means that DOE techniques minimize the number of trials needed to obtain statistical validity. It is recommended that proper use of DOE be applied for all testing.

3.6 Chemical Toxicity.

a. All handling of toxic chemicals should be performed within well-ventilated areas. The operator must wear personal protective equipment IAW applicable SOPs. Surety regulations must be followed.

b. The evaluation of chemical toxicity issues must include consideration of the effects of leaks or spills on both the test operator in the immediate vicinity and any effect on nearby laboratories where work may be impeded by a local emergency. Storage and handling SOPs must be followed.

c. All established safety air monitoring and other hazardous operations SOPs must be followed.

3.7 Training.

Test personnel must be trained regarding the test items, test scenarios, and test conditions to include the appropriate test personnel and processes to report any safety, surety, security, or health-related issues.

3.8 Quality Control (QC) and Quality Assurance (QA).

a. Before testing, the data decision rules will be established for the test in question. These rules will determine the test requirements for data elements, limits of data collected, and allowable errors for data elements. The ability to meet the decision rules will be demonstrated during a pilot trial.

b. Chain of custody (COC) procedures for the SUT, sampler, and analytical data control and accountability must be established and specified in the DTP. Each test item must have a COC document that shall be implemented immediately upon receipt of test items. The COC document will be updated at the time the SUTs are removed from storage or when custody of a sample passes from one individual to another. COC documentation will contain the following columns as a minimum:

(1) Date and time of each transaction.

(2) Signature spaces for the persons relinquishing and receiving custody.

(3) Operation description.

(4) The current location of the SUT or sample.

(5) SUT inspection.

c. All equipment, controls, and instruments shall be calibrated IAW SOPs and manufacturer's procedures. Any data acquisition system shall be checked to ensure all data are retrieved and archived IAW the DTP.

d. Preliminary demonstrations of readiness, such as a readiness review(s) and pilot trial(s) shall be conducted to ensure proper test processes and procedures are in place and the test program is properly coordinated. The pilot trial(s) shall also demonstrate that current methods and procedures, as contained in the DTP and SOPs, are followed by the test team, and that these methods and procedures are adequate to conduct the test in a safe manner.

e. Chemical analysis shall be conducted IAW procedures in local SOPs or manufacturer's recommended practices. Analytical methods shall be validated IAW the International Organization for Standardization (ISO) standard 17025[7]. The appropriate number of standards, blanks, and analytical controls must be used. Acceptable control limits of the results and how deviations from those control limits are treated must be addressed in the DTP or SOPs.

f. The sampler selected for use must be well characterized. For example, if MINICAMS® are used, ensure that precision and accuracy studies are performed after the multipoint calibration, that airflow in the fixture is adequate and does not affect data, and that there is no carry-over contamination. If solid sorbent tubes are used, take steps to ensure the capacity of the sorbent is not exceeded and that carry-over does not occur. When solvents are used for extraction, document the extraction efficiency.

g. Several storage controls will be stored with the test samples if the samples must be stored for longer than 1 day before being analyzed. These storage control samples shall be analyzed with the test samples to show any sample degradation or absorption of interfering chemicals during storage. The storage control samples will consist of blanks and analytical standards with the chemical warfare agent (CWA) concentration levels near the CWA contamination level expected in the test samples. Acceptable control limits for the results and how deviations from these results will be treated must be addressed in the DTP.

h. The data quality objective (DQO) process should be used to establish decision rules that will be applied to data for each trial. An example of a decision rule would be: If 95 percent of all temperature values are within ± 3 °C of the target value, then the temperature data for the trial are acceptable.

i. All aspects of testing shall be conducted with emphasis on acquiring valid, credible, and verifiable results.

3.9 Receipt Inspection.

a. Test item identification number (TIIN).

(1) A unique TIIN must be assigned to each SUT. All SUTs and all associated data shall be verified to ensure that each test item has the correct TIIN.

(2) A unique sample identification control number (SICN) will be assigned to each challenge sampler, sampler data file, and COC control established. The SUT TIIN will be correlated with the SICN such that the samples can be correlated with a SUT, the CWA used for the trial, and the time of sample (if applicable).

b. TOP 08-2-500A[8] provides details on conducting receipt inspection of SUTs.

3.10 Environmental Documentation.

a. All local, state, and federal regulations will be followed, and appropriate documentation will be prepared, submitted, and approved before testing begins.

b. Test personnel and participants must receive and understand the environmental documentation before the test begins.

4. TEST PROCEDURES.

a. General.

(1) The SID Fixture Operation Manual[9] (SID OM) describes the procedures to follow for the operation of the SID fixture, environmental parameter setting, and the acquisition of the required test data. All testing in the SID requiring controlled environmental (temperature and humidity) conditions will require setting the applicable parameters in the SID operating system.

(2) All test items and materials required for each trial should be placed in the SID to allow for environmental conditioning of all materials as outlined in the DTP.

(3) The chemical challenge to test items will be used to determine the number of drops based on chemical density, volume of drops required, and the contamination level required by test documentation.

(4) Other considerations for executing test procedures:

(a) Weathering or aging time – the time between test item contamination and the initiation of decontamination procedures.

(b) Time required to conduct decontamination procedures.

(c) Sampling times (both liquid and vapor).

(d) Time required to conduct test item function checks (if applicable).

(e) Test item conditioning time – the time required for test items to reach environmental condition equilibrium.

(f) Requirement to move test items between modules.

(g) Pot life of decontaminant being tested – how long after mixing the decontaminant will it remain effective?

b. Chemical Agent. Before testing, a purity analysis will be performed IAW TOP 08-2-073[10] to verify that neat agent [except for O-ethyl S-(2-diisopropylaminoethyl) methylphosphonothioate (VX)] is at least 95 percent pure. VX purity will need to be at least 85 percent pure.

4.1 Decontaminant Efficacy Testing.

a. This testing may be performed to determine the efficacy of a developmental decontaminant, to compare the efficacy of a developmental decontaminant to a fielded decontaminant, or to rank the relative performance of a series of decontaminants in operationally relevant conditions. Most decontaminant efficacy testing is conducted on coupons or panels of militarily relevant materials.

b. The testing for decontaminant efficacy for a developmental decontaminant, comparing multiple developmental decontaminants, or for comparing a developmental decontaminant with currently fielded decontaminants, will use procedures found in Paragraphs 4.9 through 4.13 (as needed) in TOP 08-2-061B[3]. Procedures found in Paragraphs 4.7 through 4.13 (as needed) in

TOP 08-2-060A[4] will be used in preparing the data by calculating toxic load values that, when applied to specific scenarios, allow a determination of vapor hazards to unprotected personnel from decontaminated military materiel.

c. Safety air monitoring (SAM) will be conducted during chemical agent testing.

4.2 Testing of Decontamination Systems.

a. A decontamination system is defined as an application system with or without an organic decontaminant. An example would be the M26 Joint Service Transportable Decontaminating System Small Scale (JSTDS-SS). The JSTDS-SS can be used to decontaminate people or equipment by providing hot water or hot, soapy water with a range of pressures, but does not contain an organic decontaminant. **NOTE**: Although the JSTDS-SS is too large to fit inside the DM, it may be possible to adapt a glove port to allow a sprayer wand hose to pass through. The safety and efficacy of any modifications to the system will be verified before resuming testing with live agent.

b. The decontamination system will be placed in the DM of the SID, using the door that opens to the laboratory and then the door will be sealed. Placement of the system is extremely important to ensure proper operation of the system.

c. The SUT(s) will also be placed in the DM as outlined in the SID OM[9] using the airlock door and the DTP required environmental conditions will be established.

d. SAM will be conducted during chemical agent testing.

4.3 CBCS Testing.

a. All test items (e.g., SUTs, decontaminants, test equipment) will be placed into the SID and the SID will be brought to the DTP-required test conditions.

b. All required test procedures for this testing are found in TOP 08-2-111C[11], but may require adaptation based on the configuration of the SUT.

c. SAM will be conducted during chemical agent testing.

5. DATA REQUIRED.

a. Temperature and RH for all trials during pre-conditioning and trial execution.

b. Duration of each sampling interval (minutes).

c. Mass of agent from contact sampling for each sample location.

d. Mass of agent from SUT extraction (residual agent).

e. Concentration of agent vapor off gassing over time from each SUT.

f. Mass of agent collected from each dose confirmation sample.

g. Results of negative and positive control samples.

h. Results from CWA purity analysis.

i. Trial start and stop times.

j. Decontamination system mixing time.

k. Decontamination system hold time.

l. Agent aging time.

m. Decontaminant weathering time.

n. Amount of decontaminant consumed.

o. Visual data, as required.

p. Calibration and QC sample results from all chemical analyses.

q. Operator observations.

6. PRESENTATION OF DATA.

a. Test parameter data such as temperature, RH, differential pressures will be presented as graphs with trial time on the x-axis. Control limits will be presented on the graphs to visually demonstrate that trial parameters are within control.

b. Results of the statistical analysis will be presented as specified in the DTP.

c. All other data will be presented in tabular format grouped by challenge, SUT type, and environmental conditions.

APPENDIX A. ABBREVIATIONS.

AD No.	accession number
ATEC	U.S. Army Test and Evaluation Command
ATTN	attention
°C	degrees Celsius
CBCS	chemical and biological contamination survivability
cm	centimeter
CM	Challenge Module
COC	chain of custody
CONOPS	concept of operations
CWA	chemical warfare agent
DOE	design of experiment
DM	Decontamination Module
DTIC	Defense Technical Information Center
DTP	detailed test plan
DQO	data quality objective
g/m^2	grams per square meter
GC	gas chromatograph
HPLC	high-performance liquid chromatography
IAW	in accordance with
ISO	International Organization for Standardization
JSTDS-SS	Joint Service Transportable Decontaminating System Small Scale
kg	kilogram

APPENDIX A. ABBREVIATIONS.

LC	liquid chromatography
µg	microgram
OM	operation manual
QA	quality assurance
QC	quality control
RH	relative humidity
SAM	safety air monitoring
SAR	safety assessment report
SICN	sample identification control number
SID	small item decontamination
SM	Sample Module
SOP	standing operating procedure
SUT	system under test
TECMIPT	Test and Evaluation Capabilities and Methodologies Integrated Process Team
TIIN	test item identification number
TOP	Test Operations Procedure
TTOP	TECMIPT test operations procedure
VX	O-ethyl S-(2-diisopropylaminoethyl) methylphosphonothioate

APPENDIX B. REFERENCES.

1. U.S. Army Dugway Proving Ground, Dugway, Utah, *Final Test Report for the Verification and Validation (V&V) of the Small Item Decontamination (SID) Test Capability,* WDTC-TR-12-094, Revision 1, 11 January 2016.

2. U.S. Army Dugway Proving Ground, Dugway, Utah, *Final Test Report for the Chemical Efficacy Environmental Testing of the Joint Sensitive Equipment Wipe (JSEW)*, WDTC-CTD-FTR-004, 3 November 2016.

3. U.S. Army Test and Evaluation Command, Aberdeen Proving Ground, Maryland, Test Operations Procedure (TOP) TOP 08-2-061B, *Chemical Decontaminant Testing*, 7 January 2021.

4. U.S. Army Test and Evaluation Command, Aberdeen Proving Ground, Maryland, Test Operations Procedure (TOP) TOP 08-2-060A, *Post-Decontamination Vapor Sampling and Analytical Test Methods*, 6 May 2021.

5. U.S. Army Test and Evaluation Command, Aberdeen Proving Ground, Maryland, Test Operations Procedure (TOP) TOP 08-2-196A, *Simulant Selection for Laboratory, Chamber, and Field Testing*, 25 January 2022.

6. U.S. Army Test and Evaluation Command, Aberdeen Proving Ground, Maryland, Test Operations Procedure (TOP) TOP 08-2-140, *Establish an Agent-Simulant Technology Relationship (ASTR)*, 14 April 2017.

7. International Organization for Standardization (ISO), Geneva, Switzerland, ISO/IEC 17025:2017, *General Requirements for the Competence of Testing and Calibration Laboratories*, March2018.

8. U.S. Army Test and Evaluation Command, Aberdeen Proving Ground, Maryland, Test Operations Procedure (TOP) TOP 08-2-500A, *Receipt and Inspection of Chemical - Biological (CB) Materiel*, 5 September 2017.

9. U.S. Army Dugway Proving Ground, Dugway, Utah, Manual, *Small Item Decontamination (SID) Fixture Operation*, CTD-MAN-028, 22 June 2021.

10. U.S. Army Test and Evaluation Command, Aberdeen Proving Ground, Maryland, Test Operations Procedure (TOP) TOP 08-2-073, *Standard Practices For Determination of Neat Agent Purity*, 18 March 2021.

11. U.S. Army Test and Evaluation Command, Aberdeen Proving Ground, Maryland, Test Operations Procedure (TOP) TOP 08-2-111C *Chemical and Biological (CB) Contamination Survivability, Small Items of Equipment*, 22 June 2021.

(This page is intentionally blank.)

APPENDIX C. APPROVAL AUTHORITY.

CSTE-CI (73-1jj) 7 December 2022

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Test Operations Procedure 08-2-068A Small Item Decontamination Fixture Testing

1. Test Operations Procedure (TOP) 08-2-068A Small Item Decontamination (SID) Fixture Testing, has been reviewed by the U.S. Army Test and Evaluation Command (ATEC) Test Centers, the U.S. Army Operational Test Command, and the U.S. Army Evaluation Center. All comments received during the formal coordination period have been adjudicated by the preparing agency.

2. Scope of the document. This TOP provides basic information to facilitate test planning, conducting, and reporting standardized testing of small items of military equipment, fielded and developmental decontaminants, and fielded and developmental decontamination systems (applicators with or without organic decontaminants).

3. This document is approved for publication and has been posted to the Reference Library of the ATEC Vision Digital Library System (VDLS). The VDLS website can be accessed at https://vdls.atec.army.mil/otcs/cs.exe.

4. Comments, suggestions, or questions on this document should be addressed to U.S Army Test and Evaluation Command (CSTE-CI), 6617 Aberdeen Boulevard-Third Floor Aberdeen Proving Ground, MD 21005-5001; or e-mailed to usarmy.apg.atec.mbx.atec-standards@mail.mil.

MASTROMANOLIS.NICHOLAS.M.1229406708 Digitally signed by MASTROMANOLIS.NICHOLAS.M.1229406708 Date: 2022.12.21 11:11:50 -05'00'

Nicholas Mastromanolis
(Acting) Director,
Capabilities Integration (A)

DISTRIBUTION

Commander, U.S. Army White Sands Missile Range
Executive Director, U.S. Army Evaluation Center
Commander, U.S. Army Operational Test Command
Commander, U.S. Army Yuma Proving Ground
Commander, U.S. Army Dugway Proving Ground
Commanders, U.S. ATEC Test Centers
Director, U.S. ATEC Tropic Regions Test Center
Director, U.S. ATEC West Desert Test Center

APPENDIX C. APPROVAL AUTHORITY.

TECMIPT Test Operations Procedure (TTOP)
8-2-068A Small Item Decontamination (SID) Fixture Testing

The Contamination Mitigation Capability Area Process Action Team (CAPAT) recommends approval of the TECMIPT Test Operations Procedure (TTOP) 8-2-068A Small Item Decontamination (SID) Fixture Testing . If a representative non-concurs, a dissenting position paper will be attached.

Organization	Signature	Date
Secretary of the Army (Secretariat) Under Secretary for Test and Evaluation (SAUS-TE)	OBRIEN.SEAN.P.1230553501 Digitally signed by OBRIEN.SEAN.P.1230553501 Date: 2022.02.24 10:18:43 -05'00' Sean P. O'Brien	
Joint Program Executive Office of Chemical Biological Defense (JPEO-CBD) Test & Evaluation	RYBAK.JOSEPH.1364953735 Digitally signed by RYBAK.JOSEPH.1364953735 Date: 2022.02.23 16:12:04 -05'00' Joseph Kybak	
Joint Requirements Office for Chemical, Biological, Radiological and Nuclear Defense (JRO-CBRND)	BULSON.CHRISTOPHER.D.1236325462 Digitally signed by BULSON.CHRISTOPHER.D.1236325462 Date: 2022.02.14 07:53:17 -05'00' Lt Col Christopher D. Bulson	14 Feb 2022
Joint Science and Technology Office (JSTO)	ODELL.BRETT.KYLE.1274940553 Digitally signed by ODELL.BRETT.KYLE.1274940553 Date: 2022.04.11 07:43:21 -04'00' Brett Odell	11 April 2022
US Army Evaluation Center (AEC)	HUGHES.JULIANE.OLSEN.1285055837 Digitally signed by HUGHES.JULIANE.OLSEN.1285055837 Date: 2022.04.20 10:55:47 -04'00' Juliane Hughes	
Operational Test and Evaluation Force (OPTEVFOR)	THIERING.JOSEPH.LEE.1257775557 Digitally signed by THIERING.JOSEPH.LEE.1257775557 Date: 2022.03.16 15:18:12 -04'00' Joe Thiering	
Air Force Operational Test and Evaluation Center (AFOTEC)	Megan R DeLeon MSgt Megan R DeLeon	24-Feb-22
Marine Corps Operational Test & Evaluation Activity (MCOTEA)	WADLEY.MICHAEL.CRAIG.1130810841 Digitally signed by WADLEY.MICHAEL.CRAIG.1130810841 Date: 2022.04.18 12:26:02 -04'00' Michael Wadley	
CM CAPAT Co-Chair	TIENES.BRYAN.MATTHEW.1469193957 Digitally signed by TIENES.BRYAN.MATTHEW.1469193957 Date: 2022.01.13 14:50:22 -05'00' Bryan Tienes	
CM CAPAT Co-Chair	BURNS.JAMES.R.1276086134 Digitally signed by BURNS.JAMES.R.1276086134 Date: 2022.04.07 23:47:55 -04'00' Jim Burns	

Forward comments, recommended changes, or any pertinent data, which may be of use in improving this publication to the Policy and Standardization Division (CSTE-CI-P), U.S. Army Test and Evaluation Command, 6617 Aberdeen Boulevard, Aberdeen Proving Ground, Maryland 21005-5001. Technical information may be obtained from the preparing activity: Commander, West Desert Test Center, US Army Dugway Proving Ground, ATTN: TEDT-DPW, Dugway, UT 84022-5000. Additional copies can be requested through the following website: https://www.atec.army.mil/publications/documents.html, or through the Defense Technical Information Center, 8725 John J. Kingman Rd., STE 0944, Fort Belvoir, VA 22060-6218. This document is identified by the accession number (DTIC AD No.) printed on the first page.