

# 琉球大学学術リポジトリ

米国管理下の南西諸島状況雑件 沖縄関係 毒ガス  
問題 第2次移送

メタデータ	言語: 出版者: 公開日: 2019-02-13 キーワード (Ja): キーワード (En): 作成者: - メールアドレス: 所属:
URL	<a href="http://hdl.handle.net/20.500.12000/43781">http://hdl.handle.net/20.500.12000/43781</a>

在米大

(回覧番号) 317 外務省電信案 (分類)

機密 (極秘・秘密)	符号表示 (暗) 略 平	※ 総第 05 185-2 号
無期限	※ 第 626 号	※ 昭和 年 月 日 時 分 発
内		FEB 5 21
大至急・至急・普通・LTF	※ 発電係	

(※印欄内は電信課記入)

大臣 事務次官 法外務審議官 副外務審議官 官房長	主管 アメリカ局長 参事官 北米才一課長	主管局部署(室)名 北米才一課 昭和 48 年 2 月 5 日 起案者 電話番号 代後 2464
---------------------------------------	-------------------------------	--

協議先

情報文化局長  
条約課長  
安全保障課長

米牛場 大使 臨時代理大使  
在 沖高松 総領事 代理  
電 在 大使 臨時代理大使  
報 在 総領事 代理

件名 沖高松の毒ガス撤去 ~~(北米才一課)~~

2. 5日在京米大シヤーマン参事官は大河原アメリカ局参事官を来訪し、米国防総省が5日午前10時(東京時間)残余の毒ガス撤去は4年夏の半年以内の終了終了には完了しようとの発表を行なう旨、内報等に別電の発表文を平文転記した。

(昭和四二・七一改正)

GB-1

2. 右に述べた方針より早急の通報を9月21日に行なった後、mid-summer、late-summerとは具体的に何月何日か、右より逆算して沖高松における撤去作業が何月から開始されたか、~~新~~に引き続き、迅速をみていらい現状<sup>に</sup>おいて本件発表を行なうことは沖高松の感情を利刺し好むべきと承えるが、特に今の時点において発表する理由如何等を検討し、先方のポイントと一致するところあり。

(1) 米国の常識では mid-summer とは7月、late-summer とは8月とされているが、右より逆算すれば5月には沖高松における撤去作業が開始するという計算になるが、本件発表は右に述べたわけにしては承えるが、発表文にもあるとおり、ジョンス島の工事がさらに進展しないと

GB-3

外務省

492

比4的トは言ハレないと思フ。

(2) 沖縄住民の感情については米側としては十分留意しているが、本件発表の<sup>祖</sup>意圖は米側が予算上の困難があつたにもかかわらず鋭意<sup>力</sup>を注ぎ、沖縄における工事を促進し受入<sup>力</sup>の増進を促していること

を明らかにするものであり、<sup>沖縄に</sup>おける<sup>交通</sup>聖路の問題<sup>に</sup>つゝ琉球政府を<sup>通</sup>して~~交渉~~を<sup>進</sup>めようとする意図は~~戦~~頭ない。聖路の問題は琉球政府あるいは日中政府が決定すべきものであり、この発表があつたからといって沖縄住民感情を刺戟<sup>す</sup>ることはな<sup>ら</sup>ず~~思~~つて<sup>お</sup>か<sup>ら</sup>な<sup>い</sup>。

(3) 発表の夕三ツグについては、米側としては早期撤去の方針と出来れば早く明らかにした方がよく(これは日中政府も望むところであると思ふ)、また、米国防議会工作も目どがついたことにもよると

予算獲得のため

承知している。

(4) 午方、屋敷主席に対しては5日午利のハート高等弁務官が他用で同主席の会議~~中~~に際しに発表の概要を説明した成、同主席の返答については自分(注)は未だ自覚していない。(この<sup>注</sup>我が方<sup>注</sup>は代表部からの報告によつて、同主席は固り<sup>注</sup>の表情を以て、今回発表は責任を自分に押しつけるものでありと述べ、有難うとも述べた由。)

本電文、米-沖縄  
(別電文)

国防省発表

2月5日 午前10時(現地時間) (04時内2A60時前発表)  
(J411局北米1課係談)

「メルヴ・R・レド国防長官は

本日、沖縄からの化学兵器の撤去は

本年の夏末には完了する

予定であると発表した。

<sup>が強調した</sup>

国防長官は、この予定は 才一次

船積みのために使用されたと同<sup>搬送</sup> -Vル-

小を 使用する ことと基礎に1尺も97

<sup>11</sup> ~~別の~~ <sup>搬送</sup> 別のルートが送定され

~~起子~~

大場合に~~起子~~あり得べき

~~大起子~~ <sup>起子</sup> 運送も考慮しての  
というのである。

~~起子~~ 沖縄における

~~大起子~~ <sup>起子</sup> 運送も ~~起子~~ <sup>起子</sup>

ストン島に <sup>起子</sup> 予期(工事)の運送も

又は、その他の予期(工事)の事案も

生い起るとすれば、化学兵器の

最終分は <sup>起子</sup> 夏 沖縄を ~~起子~~ <sup>起子</sup>

ひとりの作業が開始され ~~起子~~ 沖縄

における作業は 約2ヵ月 ~~起子~~ <sup>起子</sup>

~~起子~~ <sup>起子</sup> (終了)

工事が進捗がつかって、次回  
 船積み開始の<sup>より</sup>具申の日取り  
 を予想することが可能となろう。」

(質問がなされた場合のみの答)

質問 ジョーンズトン島での建設は開始されたか。

答 そのとおり。契約は12月31日に結ばれ、工事はその後すぐに開始された。

質問 建設に要する費用はいくらか。

答 約1200万ドルである。

質問 約610万ドルという当初の<sup>見積り</sup>算定額に比して費用が増加したのは何故か。

答 当初の見積りは1年間という建設計画に基づいていた。費用の<sup>建設</sup>

増加は、ジョーンズトン島の貯蔵施設を希望した時間的枠内で完成

するために、建設作業のピッチを上げる必要があったことによる。

質 1971年末から1972年初めという移送予定が早められているのは何故か。

答 国防総省は、兵器移送の決定がなされた時から、安全性を考慮に入れつつ移送をでき得る限り早期に完了したいと考えてきた。

秘 無期限  
部の内号

安全保障課長

アメリカ局長

参事官  
北米第一課長

沖縄の毒ガス撤去

46.2.5  
米北1.

本件に関しシャーマン・大河原会談(2月5日)

の席の先般の発言につき 行電ア626<sup>合</sup>を

補足は次の通り。(摘参事官 批|佐藤月席)

1. 本件米側発表はジョズ島における施設  
工事のaccelerationを明らかにするためのものであ

る。米側としては日本政府の強い要請があり

また、ラッパ十高等参事官の強い意見見申も

あり 今回の<sup>決定</sup>撤去と見事に至ったものであり<sup>3</sup>ことを

上記の記録を参照してください。

日中側においても十分理解して欲しい。

(当方より、米側決定を appreciate するのは勿論である

も、今回の発表の意図が前記の如くにあるとせば

前記と同じ至路を使用することも前提とする

ようめんの箇所は削除してジョンスン島

の工事についてのみ言及すれば足りるのではないか

と伺うたところ) 米側としては沖縄における  
ないは日中政府

至路の問題は琉球政府の決定と見なすところ

が、今回の発表によって琉球側を進め込む

が如きことをしているのではないか。

2. (新ルートについて) ランパト高等弁務官は山中大  
の建設

日中側は至路の負担の事と米政府は

つくとはいわねえが如何と伺うたところ) 米政

府としてはジョンスン島の施設の空費工事の

ために支出するがせいぜいであり、沖縄におけ

る新至路建設には何等の支出もなされな

い (no funds are available.)。マイク大使

が、至路負担も~~も~~条約に明らかにしたこと  
山中大臣が

について極めて不満の意を明らかにした

のも、このような背景があったからである。

(当方より、山中大臣はランパト高等弁務官との

会談で何らかの計費が locally available



となつての印象を受けて、反論してお  
 いた。  
 3. 何かにしても、米側は当初の予算の2倍並  
 の計費を支出するのであり、これは早期撤去  
 の日中政府の要請と最大限に考慮した上、  
 である。  
 4. (会談途中吉野局長が入室し、国防省  
 参事官と接して大臣に報告、大臣米側通  
 報を appreciate し、右を大河原参事官より  
 ショーマン参事官に伝達した。)

外務省電信案 (分類)

機密表示 (極秘・秘・朱印) <b>極秘</b> 無期限 部の内 号	符号表示 暗 略 平 合第 627 号	総第 05 186 号 昭和 年 月 日 時 分 発 FEB 5 2052
大至急 (至急・普通・LTF)		発電係

大臣 <del>河野</del> 事務次官 外務審議官 外務審議官 官房長	主管 アメリカ局長 参事官 (印中) 北米才一課	主務課長 <del>北米才一課</del> 起案 昭和 46 年 2 月 5 日 起案者 電話番号 代後 2464
--	-----------------------------------	---

協議先 情報文化局長	条約課	安全保障課
---------------	-----	-------

在 米 牛場 大使 臨時代理大使	あて 大臣 発
河高 総領事 代理	
電 在 大使 臨時代理大使	あて
報 報 総領事 代理	

件名 沖繩の毒ガス撤去 ~~(極秘)~~  
 経費 626 号別費

(※印欄内は電信課記入)

(昭和四二・七一 改正)

2月5日 3:00 p.m.

印-2-参事方大河原参事等之来訪  
上平交。

DOD ANNOUNCEMENT, FEBRUARY 5, 1000 A.M. EST

"Secretary of Defense Melvin R. Laird announced today that the removal of chemical munitions from Okinawa is expected to be completed by mid or late summer of this year.

"The Secretary emphasized that this schedule is based on using the same route as was used for the first shipment, and that it does not take into consideration any delays that might be caused if a different route were selected. Barring any such delays on Okinawa, or any unexpected construction delays on Johnston Island or other unforeseen circumstances, the last of the chemical munitions should leave Okinawa this summer. Once started the Okinawa phase will take about two months.

"As construction progresses, it will be possible to predict a more specific date for the beginning of the next shipment."

~~DOD ANNOUNCEMENT OF FEBRUARY 5, 1972~~

In response to queries only

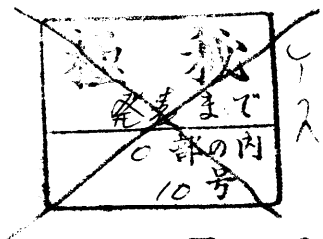
- Q. Has construction begun on Johnston Island?
- A. Yes. A contract was awarded on 31 December and work commenced shortly thereafter.
- Q. How much will the construction cost?
- A. About 12 million dollars.
- Q. What is the reason for the cost increase from the original estimate of about \$6.1 million?
- A. The original estimate was based on a one-year construction schedule. The cost increase is the result of the increased level of construction effort required to complete the Johnston Island storage facility in the desired time frame.
- Q. Why is the move being accelerated from late 1971-early 1972 time frame?
- A. The Department of Defense has desired, from the time the decision was made to move the munitions, to complete the move as soon as feasible, consistent with safety requirements.

国防省発表

二月五日午前十時(現地時間) (日本時間二月六日午前零時)  
(アメリカ局北米第一課仮訳)

メルヴィン・R・レアード国防長官は、本日、沖縄からの化学兵器の撤去は、今年の盛夏または晩夏までには完了する予定である旨発表した。

国防長官が強調したことは、この予定は、第一次船積みのために使用されたと同一搬送ルートを使用することを基礎にしたものであり、別の搬送ルートが選定された場合に起りうべき遅延については考慮されていないということである。沖縄におけるかかる遅延も、もしくはジョンストン島における予期しない工事の遅延も、または、その他の予想しえない事態も生じないとすれば、化学兵器の最終分は、この夏



沖縄から撤去されることとなる。ひとたび作業が開始されれば、沖縄における搬送作業は、約二カ月で終了しよう。

工事が進捗するにつれて、次回船積み開始のより具体的日取りを予想することが可能となろう。

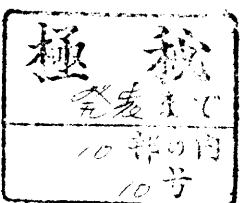
毒ガス移送に関する米国防長官の発表について  
(政府首脳発言要領)

(案)  
昭和四六、二、五  
アメリカ局北米第一課

一 政府は、沖縄住民の不安を除去するため、かねて機会ある毎に、在沖縄毒ガス兵器の早期撤去につき米側と話し合いを行なつてきた。

今般米国防長官より、在沖縄毒ガス兵器が本年夏までにすべて移送される予定なる旨発表されたことは、日本政府及び沖縄住民の要望を米側が十分配慮して、ジョンストン島における受入施設拡張工事を促進した結果として、喜ばしいことと考える。

政府としては、今後とも米側との連絡を密にしつつ、一日も早く沖縄住民の不安解消が計られるより努力する所存である。



二 (質問があつた場合には)

輸送経路についても、安全第一の観点に立つて、輸送が行なわれることが望ましいと考える。

ソカ

大政官 典房  
次次 長房  
巨官 審審長長  
備 人電厚計  
備 文 官給

国 参 企  
資 関 析  
長 長 企  
領 領 移  
移 移 移

ア 参 地 中 東  
長 北 東  
参 北 西  
参 北 保  
中 南 審 一  
歌 参 西 東 洋  
長 西 東

近 参 審 近 ア  
ア 長 長 次 總 經 國 万

長 参 實 統 国  
經 参 政 技 二  
協 長 長 国 一 理

参 参 条 協 規  
長 参 政 經 科

参 参 政 經 科  
長 專 社 專  
文 参 道 内 外  
長 一 二

注意

1. 本電の取扱いは慎重を期せられたい。
2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

267

総番号(TA) 5875 主管  
71年2月5日15時15分 米 国 発 着  
71年2月6日07時31分 本 省 着 米北1

外務大臣殿 牛場大使 臨時代理大使 総領事 代理

オキナワどくガス撤去(米側発表)

第327号 極秘 至急

貴電米北1合第270号に関し

1. 国防省は当地時間5日午前10時オキナワのどくガス撤去計画のくり上げに関する別電のと通りの発表を行なった。

2. 上記発表に関連し同省安全保障局シーツ日本課長はサトウに対し次の通り述べた概。

(1) 今回の発表文はオキナワ島内移送のための新ルート採択の可能性をかならずしも排除しない表現となっているが、国防省としては、新ルート建設につき資金を出す余地は全くない。(国務省日本部マッケルロイ。オキナワ担当官によればランパート高等弁務官としては、仮に新ルートを考える場合にも右について何等住民対策上の問題なき旨のリュウキュウ政府の保証が要るとの態度をとっているところ。ヤラ主席は米側に対し、住民対策上問題ないか否かの点も米側の責任の問題であり、自分(主席)としては責任をとれないと述べている由。)

(4) の在米大来往信電権に収録

注意

1. 本電の取扱いは慎重を期せられたい。
2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

(2) 今回の発表文は、撤去完了の目標時期が早まった理由にふれていないが、日本政府が国会等に対する説明上必要な場合には右はジョンストン島における施設建設完了時期が早まったためなる旨適き説明されてさしつかえない。ただし所要経費の額だけは外部にもれないよう今後とも御配慮願いたい。

(了)

-2-

カ  
ヒ

注意

- 1. 本電の取扱いは慎重を期せられたい。
- 2. 本電の主管変更その他については検閲班に連絡ありたい。

99

電信写

大政事外務省  
 事務次長 典房  
 臣官官書書長長  
 儀総人電厚計  
 儀書入営給  
 儀資

国資長	参調折企
領移長	参領移移

参地中東
長北東西
参北北保
中南管政
長西東洋
西東

近参近ア
長次總經国万
長参實統国
長經協長
参政技二
国一理
参条協規
長参政經科
長軍社專
情長参道内外
文長一二

總番号(TA)	5975	主管	
71年2月5日17時50分	未回	発着	
71年2月6日09時04分	本省	着	米北
外務大臣殿	中場	大使	臨時代理大使 総領事 代理

沖縄毒ガス撤去 (未側発表)

第336号 平  
 経電第327号 別電

SECRETARY OF DEFENSE MELVIN R. LAIRD ANNOUNCED TODAY THAT THE REMOVAL OF CHEMICAL MUNITIONS FROM OKINAWA IS EXPECTED TO BE COMPLETED BY MID OR LATE SUMMER OF THIS YEAR. THE SECRETARY EMPHASIZED THAT THIS SCHEDULE IS BASED ON USING THE SAME ROUTE AS WAS USED FOR THE FIRST SHIPMENT, AND THAT IT DOES NOT TAKE INTO CONSIDERATION ANY DELAYS THAT MIGHT BE CAUSED IF A DIFFERENT ROUTE WERE SELECTED.

BARRING ANY SUCH DELAYS ON OKINAWA, OR ANY UNEXPECTED CONSTRUCTION DELAYS ON JOHNSTON ISLAND OR OTHER UNFORESEEN CIRCUMSTANCES, THE LAST OF THE CHEMICAL MUNITIONS SHOULD LEAVE OKINAWA THIS SUMMER. ONCE STARTED, THE OKINAWA PHASE WILL TAKE ABOUT TWO MONTHS.

AS CONSTRUCTION PROGRESSES, IT WILL BE POSSIBLE TO PREDICT A MORE SPECIFIC DATE FOR THE BEGINNING OF THE NEXT SHIPMENT.

(3)

機密表示 (極秘・秘の朱印) <b>極秘</b>	符号表示 暗 略 平 暗	総第 08 162 号
第 259 号	昭 和 8 年 2 月 8 日 時 分 発	
大至急 至急 普通 LTF	発電係	F

大 臣 政 務 次 官 事 務 次 官 外 務 審 議 官 外 務 審 議 官 官 房 長	主 管 アメリカ局長 参 事 官 参 事 官 北米一課長	主 管 局 部 課 (室) 名 アメリカ局北米一課 起 案 昭 和 8 年 2 月 8 日 小 田 野 2467
--	--	---

協議先

米保長

在 米 牛 場 (大使) 臨時代理大使  
総領事 代理 代理 代理  
あて 愛知外務大臣 発

電 報 在 沖 縄 高 瀬 (大使) 臨時代理大使  
総領事 代理 代理 代理  
あて

件 名 沖 縄 毒 気 撤 去

貴 電 才 327 号 2. (2) に 関 し

冒 頭 貴 電 の 次 才 は あ り 往 電 才 626 号

米 保 長 明 に よ れ ば 記 者 団 か ら の 質 問 が あ り 米 保 長 明 に よ れ ば 記 者 団 か ら の 質 問 が あ り

所 要 経 費 に つ い て も 説 明 了 り お 申 上 り 願 います

本 件 発 表 に 当 っ て の 質 疑 応 答 の 際 所 要

(※印欄内は電信課記入)

(昭和三年の通)

GB-1

に つ き 可 行 可 否 が 存 在 して いる か

~~経 費~~ 説 明 振 り 如 何

もし 説 明 さ れ ず と す れ ば 当 方 に お い て 国 会 等 に お い て 質 問 が 出 来 ます

か ら 説 明 さ せ る と 得 ない と 考 へ ます

右 確 認 の 上 回 電 あり たい

結 果 確 定

沖 縄 へ 転 電 した

GB-3

外務省

105

写 済

105

105

電信課長

在 京



極秘

注意

- 1. 本電の取扱いは慎重を期せられたい。
- 2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

明を入れたのは対りゆうきゆう政府説明上、経費の説明も必要であるとのランバート高等弁務官からの強い要望と、仮りにオキナワないし東京で金額が出て、右が米議員の目にふれることはほとんどあり得ないとの当地米当局者の判断にもとづくものである。

(丁)

極秘

注意

- 1. 本電の取扱いは慎重を期せられたい。
- 2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

線番号(TA) 6277  
 71年 月 8日 20時10分 米 野 発 米北/  
 71年 2月 9日 10時56分 本 省 着 米北/

外務大臣殿 牛場 (大使) 臨時代理大使 総領事 代理

オキナワどくガス撤去(所要経費)

第349号 極秘 至急  
 貴電米北/第259号に関し、

8日、国務・国防両省担当官がサトウに述べたところ次のとおり。

1. 5日の当地における発表の際の記者会見において、国防省側は本件所要経費(1,200万ドル)には言及しなかつた。

2. 日本政府が、国会対策等の関係でどうしても必要と判断される場合には上記数字に言及されてもかまわないが、

(イ) 右数字は一応の計画額であり今後変更する可能性もあり、また、

(ロ) 米政府としては対議会関係上、予算面の話しを極力さけてとおりたい事情にあることでもあり、上記金額を余りプレイアップされることなきよう御配慮してほしい。

3. 貴電米北/合第627号の米側報道関係応答要領は、質問があつた場合の備えであるが、その中に金額面の説

大臣官舎  
 次長  
 秘書長  
 文書課長  
 庶務課長  
 総務課長  
 秘書課長  
 文書課長  
 庶務課長  
 総務課長  
 秘書課長

参議院議長  
 参議院副議長  
 参議院事務局長  
 参議院事務局次長

参地中東  
 参北東西  
 参北北保  
 参一二  
 参西東洋  
 参四東

参審近ア  
 次総経国万

参實統  
 参政技二  
 参国一理

参条協規  
 参政経科

参軍社專  
 参道内外  
 一二

(回覧番号) 433, 外務省電信案 (分類)

機密表示 (機密・秘の朱印) <b>極秘</b>	符号表示 (暗) 略 平 合第 <b>843</b> 号	※ 総機 142-2 号 ※ 昭和 年 月 日 時 分 発 FEB 17 20 2
<b>YYYY</b>	大至急・至急 普通・LTF	※ 発電係 <b>3</b>

主任 事務次官 事務次官 外務審議官 外務審議官 官房長	主管 アメリカ局長 参事官 北米才一課長	主管局部課(室)名 米北1 昭和46年2月17日 起案者 電話番号 カリ 2465
---	-------------------------------	---

協議先

条約課長 安全保障課長 軍縮室長

在シアトル 米大使 臨時代理大使  
林田 総領事 代理  
あて 外務大臣 発

在米 大使 臨時代理大使  
総領事 代理  
あて

件名  
沖繩・毒ガス撤去  
シアトル  
電中11号に因り、

1. 自頭電のワシントン州政府より情報は、  
従来ワシントン及び沖繩に於ける米側当局  
かかる種類の安全基準は米国内に存在し、  
従来  
との説明ぶりとは食い違ふと云ふ、本件に付

(※印欄内は電信課記入)

他官系電信係 昭和四二七一改正

GB-1

至急調査の上 関連情報と併せて結果  
回電ありた。シアトルに於ける自頭電に引附  
2. 本件安全基準の問題は在沖繩毒ガス  
兵器移送の際 講せざるべき安全措置と  
関連し 極めて機微な問題であり、国会等  
に及らざるに留意し、高次部に鑑み、今後  
本件に付 21日 暗号電を以て処理された。

~~米大使電~~

平電宛先: 米、シアトル。 (3)

言の概もあつて同電ありた。

GB-3

外務省

字 済

154

機密表示 (極秘・秘の未印) <del>秘</del>	符号表示 暗 <del>密</del> 平	総第 20 164 号
期限	第 947 号	昭和 年 月 日 時 分 秒 FEB 20 21 15
大至急 <u>至急</u> ・ 普通 ・ LTF		発電係

大 臣 政務次官 事務次官 外務審議官 外務審議官 官房長	主管 アメリカ局長 参事官 北米才一課長	主管局部課(室)名 米二 起案 昭和 46 年 2 月 20 日 配案者 電話番号 伏後 2464
--	-------------------------------	---

協議先  
河本 安全保障課長 大河原 課長

在 米 米中場 大使 木川 調 総領事	臨時代理大使 代理	あて 岸 知 大臣 発
電 在 沖 高瀬 大使 報 総領事	臨時代理大使 代理	あて

件名 沖繩からの毒ガス撤去。  
20日は当地紙(刊)は、ミン下院議員が  
19日沖繩の毒ガス兵器をジョンストン島に移  
送することを禁止する法案を提出した旨報じて  
いたこと、右を確認の上、法案提出の背景、審  
議の見とおし等(情入平)をたく結果輕  
急回答列した。

(※印刷内は電信課記入)

(昭和四二・七一 改正)

GB-1

沖繩に転電した。  
本電の先: 米、沖、川

(3)

GB-3

外務省

漢

写  
濟

99

(貴見の如)

ソカヒ

注意

- 1. 本電の取扱いは慎重を期せられたい。
- 2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

40

大政事外外職官  
事務次長 奥房  
巨官官審審長長  
補給人電庫計  
備書文会當給

参調析金  
参領旅移

ア 参地中東  
長 北東西  
米長 参北北保  
中南  
参一  
参西東洋  
長 西東

近ア 参書近ア  
長 次総経国万  
長 参質統国  
参政技二  
国一理  
参条協規  
長 参政経科  
長 軍社専  
参道内外  
長 一二

総番号 (TA) 902 / 主管  
70年 2月 22日 21時 38分 米 国 発着 米北 /  
70年 2月 23日 12時 16分 本 省 着 米北 /

外務大臣殿 竹場 大使 臨時代理大使 総領事 代理

オキナワからのどくガスの撤去

第490号 略 至急 (ゆう先処理)

貴電米北 / 合第947号に関し

22日ミンク下院議員は往訪の木内に次のとおり述べた (関係資料入手次第空送する)。

自分はオキナワにどくガス兵器を置いておこうと考えてジョンストン島に移送することを禁止する法案を提案 (2月 / 8日) したものでないことにつき誤解なきようお願いする。ニクソン大統領自身危険な生物化学兵器の使用反対を国策としている。その点では日本政府も同感と思う。然るに米国国務省はどくガスを備ちくしておきたいため、やかましくなつたオキナワからジョンストン島に移送しようとしている。自分としてはかかるちよ蔵に反対であればこそ本件法律を提案しているのである。詳しいことはわからないが、無どく化し、これを破棄する作業は、技術的に、また、安全上からみてもさほど困難な作業とは思われない。経費もジョンストン島に移送するより安くすむのではないか。オキナワの住民に願いたいのは、この種危険な兵器を

外務省

注意

- 1. 本電の取扱いは慎重を期せられたい。
- 2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

おん存して人類をおびやかし続けることをやめるため、決して危険でない無どく化作業をオキナワで完了することが、オキナワ住民のそして人類全体のふくしに寄与することになるとの認識にたつてもらいたいことである。

ジョンストン島のちよ蔵につき技術的安全が確保されているかどうか第一次はん入に際し部外者は視察立入りを禁じられたため自分等としては見当がつかない。

(以下発言はミンク議員の立場もあり取扱いに注意ありたい。) 本件法案成立の見通してあるが、実際問題としては日本政府にせかされたためでもあるが、ジョンストン島への移送は本年夏までに完了すると聞いている。そうならば本件法案もほど同然で成立の見通しもなにもあつたものではない。ジョンストン島で将来無どく化するかどうか、ちよ蔵上何か不都合な事件でも起らない限り、この島のハワイからのきよ離は800マイルもあるため世間から段々わすれ去られるのではないかと思つている。

ホノルルに転電した。

(了)

外務省

米局長 米局長  
 回單 送 信  
 アメリカ局長 参事官  
 北米第一課長

政 第 1576 号	昭和 46 年 2 月 26 日
外 務 大 臣 殿	在 米 牛 場 大 使

引用(来)(往)公信・電信番号 住電才 490 号

送付資料

沖縄の毒ガス撤去  
 (ینگ議員等の法案)

米局長 参事官

局長
首席事務官
総務
渉外調査
漁業
航空
科学協力
連絡調整
調査
力加
局庶務



(希望配布先)

附属添付  附属空便(行)  附属空便(DP)  附属船便(貨)   
 (郵)

調査 本信写送付先

(別添とも)

3/3 才

D J O  
F P N  
A A T  
A A

92<sup>D</sup> CONGRESS  
1<sup>ST</sup> SESSION

# H. R. 4591

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 18, 1971

Mrs. MINK (for herself, Mrs. ABZUG, Mr. ADDABBO, Mr. BADILLO, Mr. BEGICH, Mr. BURTON, Mrs. CHISHOLM, Mr. DOW, Mr. WILLIAM D. FORD, Mrs. GRASSO, Mr. HECHLER of West Virginia, Mr. LEGGETT, Mr. MATSUNAGA, Mr. MIKVA, Mr. REES, Mr. TIERNAN, Mr. VAN DEERLIN, and Mr. YATES) introduced the following bill; which was referred to the Committee on Armed Services

## A BILL

To amend the Military Procurement Act of 1970 to prohibit the future transportation, deployment, storage, or disposal of chemical and biological warfare munitions outside of the United States.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*  
3 That section 409 (c) (1) of the Military Procurement Act  
4 of 1969 (Public Law 91-121), as amended, is amended  
5 to read as follows:

6 “(c) (1) None of the funds authorized to be appropri-  
7 ated by this Act or any other Act may be used for the

1 future transportation, deployment, storage, or disposal, at  
2 any place outside the United States of—

3       “(A) any lethal chemical or any biological warfare  
4 agent, or

5       “(B) any delivery system specifically designed to  
6 disseminate any such agent.

7       “As used in this paragraph, the term ‘United States’  
8 means the several States and the District of Columbia.”

92<sup>ND</sup> CONGRESS  
1<sup>ST</sup> SESSION  
**H. R. 4591**

---

## **A BILL**

---

To amend the Military Procurement Act of 1970 to prohibit the future transportation, deployment, storage, or disposal of chemical and biological warfare munitions outside of the United States.

---

By Mrs. MINK, Mrs. ABZUG, Mr. ADDABBO, Mr. BADILLO, Mr. BEIGH, Mr. BURTON, Mrs. CHISHOLM, Mr. DOW, Mr. WILLIAM D. FORD, Mrs. GRASSO, Mr. HECHLER of West Virginia, Mr. LEGGETT, Mr. MATSUNAGA, Mr. MIKVA, Mr. REES, Mr. TIERNAN, Mr. VAN DERLIND, and Mr. YATES

---

FEBRUARY 18, 1971

Referred to the Committee on Armed Services



# NEWS RELEASE ---

**PATSY T. MINK**

D-HAWAII

U. S. House of Representatives  
Washington, D. C.



FOR IMMEDIATE RELEASE

February 18, 1971  
P.R. No. 71-24

WASHINGTON, D.C. --- Representative Patsy T. Mink and other Members of Congress today introduced legislation to bar the shipment of chemical warfare munitions to Johnston Island.

Mrs. Mink said the bill was necessary because the Department of Defense has announced stepped-up plans to remove all munitions from Okinawa and store them on Johnston Island by this summer.

The Mink Bill would amend the military procurement act of 1969 to bar the use of Federal funds for transportation, deployment, storage, or disposal, of lethal chemical or any biological warfare agents outside of the United States. Present law prevents such activities in the United States without safety clearance by the Department of Health, Education and Welfare.

"Legislation to prevent the shipment to Johnston Island was passed by the Senate in the last Congress but died in a House-Senate conference committee despite our efforts to obtain approval," Mrs. Mink said.

"Actions by the Congress and statements by the President have clearly established a national policy against the use of lethal chemical and any biological warfare agents. To store such agents on Johnston Island, just 800 miles from Hawaii, for future use would be in violation of this policy.

"Instead of transferring this stockpile of deadly nerve gas, it should be detoxified immediately on Okinawa and destroyed."

Mrs. Mink pointed out that the President on November 29, 1969, renounced the use of biological warfare agents but did not limit the "defensive" use of chemical weapons such as those on Okinawa.

"I see no valid reason for a distinction between these two repugnant forms of warfare," Mrs. Mink said. "Why abandon the biological agents but maintain a chemical agent capacity?"

"As with biological weapons, we have no assurance that we would not be attacked with chemical agents, yet the use of biological weapons even in defense has been rejected while the use of chemical weapons is condoned by the President.

"To be consistent with the previous actions of Congress in this matter, we should bar this shipment to Johnston Island," Mrs. Mink said.

伊勢政府とこれ反對の心持の子。

秘密表示 (朱印)

**取扱注意**

部数指示	発信用	執務用	備考
主 信	/	/	2
付	あり (X0半)		
属			

発送日  
処理日 昭和46年2月23日  
発信 多タイプ 検査済

文書課長 公 信 案 (分類)

公 信 番号 米北1 第 292 号 公 信 日付 昭和 46年 2月 22日

大 臣 政務次官 事務次官 外務審議官 外務審議官 官 房 長	主 管 アメリカ局長 参 事 官 北米才一課長	起案 昭和46年2月18日 起案者 12中 電話番号 2465
--	----------------------------------	---------------------------------------

協 議 先  
安全保障課

受 信 者 在米 中場大使	発 信 者 参知外務大臣
------------------	-----------------

写 送 付 先  
(希望発送日)  
月 日

件 名 才1次毒ガス移送対策に関する  
総括説明資料の送付  
別添(4)の移送対策  
総括欄にあり

GA-3 外務省 回覧番号 449

22 167

米北第292号  
昭和46年2月22日

在 米 大 使 殿  
外 務 大 臣

(件名) 才1次毒ガス移送対策に関する  
資料の送付

引用公・電信  
日付・番号

去る1月実施された沖縄よりの才1次毒ガス  
移送に關し、この左記琉球政府毒ガス撤去対策  
本部が作成した総括説明資料を入手したの  
で、同資料の一部貴館参考までに別添のとおり  
送付する。

※ 付属添付  付属空便(行)  付属空便(DP)  付属船便(貨)  付属船便(郵)

GA-2-1 外務省

(※印は文書課記入)

509 外務省電信案 (分類)

機密表示 (極密・密の未印)	略 平	総第 23 173 号
極密	第 365 号	昭和 年 月 日 時 分 秒 FEB 23 2 3 0
YYXYYY	大至急・至急・普通・LTF	発電保

大 陸 機務次官 参務次官 主任外務審議官 参外務審議官 参 事 長	主管 アメリカ局長 参 事 官 北米才一課長	主管局部課 (室) 名 北米才一課 起来 昭和 26 年 2 月 23 日 電話番号 2465
---	---------------------------------	---

協議先  
 米 米 米 米 米 米 米 米  
 米 米 米 米 米 米 米 米

在米 大使 臨時代理大使  
 総領事 代理  
 米 外務 大臣 発

在シアトル 大使 臨時代理大使  
 総領事 代理  
 米 外務 大臣 発

件名  
 在沖繩米軍撤去  
 シアトル来信 中 88 号に準じ、  
 1. 昌碩公信 別添書簡に於て、米陸  
 軍角より 陸軍が mandatory なると  
 あると主張し、その理由として、前  
 記書簡のいふ ~~requirements~~ requirements

写 済

200

(※印刷内は電信機記入)

シカゴ總領事に収録 (昭和四二・七一 改正)

GB-1

(沿道から半径 20 マイル以内の住民  
 は避難せよとの要) ~~はシカゴに避難せよとの要~~ (右も  
 とも 避難せよとの要) ~~の要~~ 軍次半例  
 説明 (方角もいわゆる「8 時、4 時」の  
 如き「基準」は存在せよ前提で非  
 法的に右の様に述べた説明を行  
 うべき) と一致せよ。理解に  
 苦しみと云ふ事がある。 ~~その旨は~~ 一  
 外部一般の知るところと云ふは、国会  
 決議上は勿論、沖縄現地の如く  
 重大な問題と云ふべきに達せよ  
 といふ。 ~~その旨は~~ 上記の如き意  
 向に陸軍省より 州に示されたが、  
 然りとせば、その旨を陸軍省の  
 真意如何、然らざれば、何故

GB-3

外務省

3

例例がわくわくして居るに至つ  
 七の八等(連)連絡報及び意見と共  
 に急用を命じたい。

シフトに転送した。

(3)

GB-3

外務省

ソカ  
ヒ

大政外務省  
 参事 典務  
 次次  
 巨官官署長長  
 備補人電厚計  
 備書文会管給

参事折全  
 参事折移

ア 参事中东  
 長 北東西  
 参事北北保  
 中 参事一二  
 南 参事西東洋  
 参事西東

近ア 参事近ア  
 長 次参事四万

長 参事参三  
 参政技二  
 参事参一理

参事参三  
 参政参科

参事参科  
 参道内外  
 一二

注意

1. 本電の取扱いは慎重を期せられたい。
2. 本電の主管変更その他については検閲班に連絡ありたい。

386

電信写

総番号(TA) 92K5  
 71年2月23日21時10分 米 国 発着 米北/  
 71年2月24日11時19分 本 省 着

外務大臣殿 牛場 大使 臨時代理大使 総領事 代理

在オキナワのドクガス撤去

第506号 略 大至急

貴電米北/第365号に関し、

陸軍省等関係方面に問い合わせたところ次のとおり。

住民避難を含む画一的な安全基準はなく、国防省が作成した移送計画の安全性をJEWが審査の上確定することとなっており、従って安全確保のためにとられる措置も移送場所の実情に即してケース・バイ・ケースに判断されることとなつている。

すなわち、客年8月アラバマ、ジョージア、サウスカロライナ、ノースカロライナを經由してフロリダおきにしずめた際も、そのときの移送計画にしたがい、先行車りようを走らせ、本体をはしらせ、最期に万一流出の場合に備えての念のための無ドク化作業はんを後続せしめる等のしゆうとうな措置はとつたが、それ以上の危険はなんら予知されざるため、住民避難は問題とならなかつた。万一えき体ガスが流出した場合に備えて直ちに無ドク作業が行なわれる体制にさえあれば十分と考えられている。すなわち万一え

外務省

注意

1. 本電の取扱いは慎重を期せられたい。
2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

液体が流出した場合にその現場で作業はんが如何に処理をすべきかの技術上の要領をわかつていけばよいわけで、したがって避難の問題は起らない。あくまでもか空の問題として流出した流体ガスを処理もほどこさず、そのまま高おんでかぜのある目に放置しておけば、流出地点から20マイル、60度の地域にひ害が及ぶと説明したことがあり、この数字が直ちに要避難地域と誤解されたものと考えられる。

なお、GBは水のようなえき体、UXは原油のようなえき体で、いずれも気化しにくいものであるため、直ちに作業はんが廃棄処理にかかればどこにもひ害は及ばない。

ワシントン州でドクガス反対の法案が提出された由だが、その際関連事項として具的的な安全基準に言及もされず、その当否が問題とならなかつたこともその間の事情を物語るものとみてよからう。

オキナワの場合にもその地形に応じての輸送計画が策定されるべく、またオキナワと米本土との間に差別を設けるようなことはあり得ない。

シアトル、ポートランドに転電した。

(了)

秘

(回覧番号 536) 外務省電信案 (分類)

機密表示 (極秘・秘の朱印)	符号表示 略 平	※ 総第 27 173-2 号
極秘	※ 合第 1087 号	※ 昭和 年 月 日 時 分 発
大至急・至急・普通・LTF		FEB 27 20 23 発電係

漢 福 手

大 臣 政 務 次 官 事 務 次 官 外務審議官 外務審議官 官 房 長	主 管 アメリカ局長 参事官 北米才一課長	主管局部課(室)名 米北1 起案 昭和46年2月26日 起案者 坂本 隆 電話番号 2466
--	--------------------------------	--

協議先  
2軍縮室長 安全保障課長

在 米 牛場 (大使) 臨時代理大使  
沖繩 高瀬 総領事 代理  
あて 愛知 大臣 発  
電 報 在 大使 臨時代理大使  
総領事 代理 あて

件名  
毒ガス撤去 (橋・シャーマン会談)  
沖繩米電カ24251(1)し、  
25日在京米大シャーマン参事官は橋ア  
11カ局参事官を来訪、会談したところ、要旨次  
のとおり。  
1. 先方より、(1) ジョーンズ島の工事加進捗し、  
5月に受入れ可能となり、5月に輸送を

451

済

(※印欄内は電信課記入)

(昭和四二七一 改正)

開始し得るよう日本側の配慮を得たい。(ロ)米側  
<sup>依然</sup>として、第1次移送ルートは<sup>依然ハルと承えている</sup>~~予定にある~~  
が、<sup>追加</sup>一新ルートを建設する場合は、追加支出  
を渡す米國議会との関係もあり、所要経費は  
日本側で負担していただくよう考慮ありたい、と述べた。

2. 当方より、新ルート建設工事費支出につき米側  
に flexibility の余地なきやと質したところ、  
先方は、国防総省の予算に係わるので正式に回  
答すべき立場にはないが、今次1200万ドルの支出  
(<sup>追加</sup>を以て米側は more than fair share of burden  
を負担したとの感触を抱いており、これに上乗せ  
しての支出はまず不可能ならぬ、いずれにせよ  
本国政府の承認を要す、と答えた。

3. 先方は、米側は沖縄の民意に添い移送を  
早め子べくジョージア島の工事を繰上げた次第

であるが、芝般の山中長官発言(日本政府は新  
ルート建設費用半額負担の用意あり)もあって、  
ルート変更が大きく取上げられ些か困惑して  
いる次第であると述べ、立法院或いは琉政が  
ルートを~~決定する~~と判断し~~ておらず~~  
<sup>時期の見直しを</sup>質内越した。

<sup>米側がジョージア島工事終了を内定した後の</sup>  
これに対し当方より、(イ)ルート問題は、<sup>政治的</sup>いかなる  
new development <sup>も</sup>ので、<sup>米側は</sup>political  
wisdom の見地から新ルート建設<sup>追加支出</sup>  
につき flexibility を持ち得るや、重ねて検討  
ありたい旨要望しおくと共に、(ロ)屋良主席もルート  
の決定を急かぬはならぬことは充分承知している  
ところ、高瀬大使よりランポート弁務官に対し屋良  
主席を交えて本件につき来週にでも打合せ  
ことを提案した由であるので、その結果にも注目

した旨答えた。

沖米電報215号(3)1-F1)

4. 当方より、現地では学校が夏休みに入る7月

20日以降が搬送時期として好都合なり

との考えも強<sup>あり</sup>旨指摘したところ、先方は

その点も併せて関係方面の注意を喚起

してあく述べた。

本電視念：米、沖。

極 秘  
無 期 限  
部の内  
号

大 臣

事務次官

法昭外務審議官

安川外務審議官

官房長

軍縮室長

安全保障局長

アメリカ局長

参事官

北米第一課長

毒ガス撤去問題

(橋・シャーマン会談)

46.2.25

未北1

2月25日在京米大シャーマン参事官は  
橋アメリカ局長参事官と来訪し会談した

その要旨次のとおり。(未北)加藤同席)

1. 先方は2月23日ラポート弁務官が高瀬  
大使に申述べたところと parallel である

と前提の上次の2点を要望した。

(1) ジョニストーン島の工事が進捗し、5月に

米沖  
米沖  
米沖  
米沖



受入れ可能となった。沖縄からの輸送の遅れのたの同島の施設が *idle* になる如き事態が生ずれば、政府としては対議会関係上困難な立場に陥るので、5月に輸送を開始し得るよう日本側の配慮をも得たい。(ロ) 米側としてはオ1次移送ルートで良い筈と考えまだあきらめていない。然し現地の事情が複雑なことも承知しているところ。新ルートの建設には工事期間及び経費に問題があり、米国議会は、今般のミンク議員提出の法案にも窺われる如く、この上追加経費の支出を承認しない雰囲気にあるので、万一新ルートを建設することとなる際も、上記(ロ)

のタイミングの要素を念頭に於かれ、所要工事は日本側で負担していただくよう考慮ありたい。

2. 当方より本件は折角現地で検討中であるが、新ルート工事費のための追加支出の点につき米側には *flexibility* の余地なきやと質したところ、先方は国防総省の予算に係わり、正式に回答すべき立場にはないが、米本国の関係者は今次1,200万ドルの支出(施設建設、工事促進に夫々600万ドルずつと説明したので沖縄米電カ242号1.2. ランパートは工事促進に300万ドルと説明した旨喰違いを指摘したか先方は詳かにせず)

を以て米側は more than fair share of burden を負担したとの感触を抱いており、これに乗せしめたの支出はまず不可能ならんと答えた。当方より国防総省の裁量にて追加支出し得るやと質したに対し、是方は国防総省の予算の内容については詳しくはしないが、これにせよ現地でほなく本国政府の承認を要すべしと答えた。

3. 是方は米側は沖縄の民意に添った移送を早めるべくジョージア島の工事を繰上げた次第であるが、先般(1月19日)の山中長官の発言(日本政府は新ルート建設費用の半額負担の用意あり)もあって

ルート変更が不きく取上げられ、些か困惑している次第であると述べ、立法院或いは琉政がルートをいつ頃決定しうると判断しているかと質内越した。

これに対し当方より、(1)米側がジョージア島工事の繰上げを内定した時期以降に移送ルートをめぐる問題が激化したものと推測されるので、ルート内題は

いわば new development である。従って political wisdom の見地から新ルートの建設が必要となる場合には、米側においてこの新しい事態に対応し

何らかの追加支出をも考慮する flexibility を持ち得るや重ねて

検討ありたい旨要望しおくと共に、(ロ)屋  
 良主席もルートの決定を急加ねはつなら  
 ぬことば充分承知しているところ、高瀬  
 大使よりランポート并務官に対し屋良  
 主席をまいて本件につき来週にでも  
 打合せの事を提案した由であるので、  
 その結果にも注目したい旨答えた。  
 4. 当方より現地では学校が夏休みに  
 入り7月20日以降が搬送時期として  
 好都合なりとの考えも強い旨を指摘  
 (したとこ)、先方はその点も併せて関係  
 方面の注意を喚起してかくと述べた。

GA-6

外務省

ノカヒ

政務外務官  
 事務次長 典房  
 大臣官舎審議長  
 総務人電厚計  
 備書文会営給

調査長 参企折調  
 参領移移

ア 参地中東  
 参北東西  
 参北北保  
 中南参一  
 参西東洋  
 参西東

近ア参書近ア  
 参次総経国万

参参買統国  
 参政技二  
 参国一理

参参条協規  
 参政経科

参参社專  
 参参道内外  
 一二

3/16 午 午後3時  
 意

1. 本電の取扱いは慎重を期せられたい。
2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

総番号(TA) 13545  
 71年3月15日18時45分 米 国 主 管  
 71年3月16日08時59分 本 省 参 考 米北1

外務大臣殿 牛場 大使 臨時代理大使 総領事 代理

どくガス撤去安全基準

第720号 極秘 至急

貸電第306号及び往電第506号に関し

国頭往電の調査の際陸軍省の化学兵器の専門家でありオレ  
 ギオン州への移送計画、フロリダおきへの廃棄計画作成にあ  
 たり関係州当局とのせつしようにも参加した陸軍省の CH  
 EMICAL AND NUCLEAR OPERATI  
 ONSの次長オーズニック大さ(JONE J OSIC  
 K)が20マイルの避難区域うんぬんの話が出た経緯とし  
 て語るところ次の通り。

1. オレゴン州当局と予備的な話し合いをしている過程で現  
 地民間団体より種々の事故を想定してその場合の安全対策  
 についての質問が出されていたため陸軍省側より仮りに山  
 の全くない平地で、かつ高おんでかぜのあるという気象条  
 件の下でえき体ガスがもれた場合にそれを放置しておけば  
 ガスが最大限20マイルまで流れることがありうるとの答  
 えをした経緯がある。

2. しかしながら上記はガス流出の場合の影響を及ぼす範

外務省

272

添付なし

極秘

注意

- 1. 本電の取扱いは慎重を期せられたい。
- 2. 本電の主管変更その他については検閲班に連絡ありたい。

電信写

国について述べたものであり、気体ガス流出後直ちに無  
どな化物質を行なえば危険はなくなるのであり、陸軍省と  
してはその点の対策をしておけば十分と考えている。フロ  
リダおきへのどくガス兵器廃棄の際には通過各州とも陸軍  
省側の右説明に納得し避難の問題は生じなかつた。なおオ  
レゴン州の場合には途中で移送計画が中止になつたので上  
記ノの点以上に議論が発展しなかつた。

(7)

-2-

(回覧番号 724) 外務省電信案 (分類)

機密表示 (極秘・秘の朱印) <b>秘</b>	符号表示 暗 (略) 平	※ 総第 20 171 号
	※ 第 543 号	※ 昭和 年 月 日 時 分 秒 MAR 20 19. 04
	大至急 (至急)・普通・LTF	※ 発電係

電信課長

代 理 官

大臣 政務次官 事務次官 外務審議官 外務審議官 官房長	主管 アメリカ局長 参事官 北米才一課長	主管局部課(室)名 米北1 起案 昭和 46 年 7 月 26 日 起案者 電話番号 川原 2465
---	-------------------------------	--

協議先  
安全保障課長

在米 牛久保 (大使) 臨時代理大使  
総領事 代理 大臣 発

電 報 在 大使 臨時代理大使  
報 総領事 代理 大臣

件名  
在沖繩毒ガス撤去問題  
沖繩米電報 65号 2.1.12  
貴国 1-2.73 TOXIC CHEMICAL AGENT  
(輸送)  
TOXIC CHEMICAL MUNITION の貯蔵、取扱、  
その他の手続に關する法令、規則 (1-2.10)  
州際通商手規則、煤炭物輸送法 (TRANSPORTATION

享 濟

(※印欄内は電信課記入)

JDA 阿達 2 佐と 700 W 可  
(4) 9 沖繩米往信 電報 (昭和四二・七一) 改正

OF EXPLOSIVES ACT)、ゴ-ストロ-ト規則、  
 5.10.9 ARMY REGULATIONS、等)、及2  
 办一次移送ハ陸羽公衆衛生局長以下  
 の委員会ニ付テ示唆の付キテ入手の上、  
 空送願<sup>ト</sup>ハ<sup>ハ</sup>。

(刻) (37)

GB-3

外務省

アメリカ局長

秘密標記 (赤色)

陸軍省  
北米才一課長

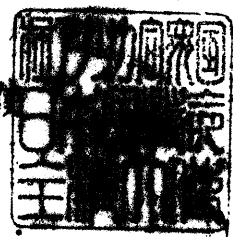
参事官

北米才一課長

政 第 2458 号  
昭和 26 年 3 月 30 日

外務大臣 殿

在 牛場大



首席事務官

総務

(件名)

沖縄毒ガス撤去問題(資料送付)

源 素

航空

科学協力

引用公・電信

連絡調整

日付・番号

調査

力ナダ

局庶務

貴電北工才543号

冒頭貴電ニ御申越しの資料

の内、陸軍の化学物及至爆発物

の取扱ハ一箇ルル規則下記ノ旨ヲ

現行規則ニ別添送付ナリ。

付属添付  付属空便(行)  付属空便(DP)  付属船便(貨)  付属船便(郵)

本信送付先:

本信写送付先:

省内写配布希望先:

GA-3-1

在外公館

857



手

防  
記  
方

長  
ONTA

(45  
送  
付  
可  
ナ

他省関係規則も入手手配中  
1=つ。入手次第で追送する。

記:

1. CHEMICAL AND BIOLOGICAL SURETY PROGRAM, CHEMICAL-BIOLOGICAL ACCIDENT AND INCIDENT CONTROL. (1969年3月21日付 AR 50-21)
2. REPORTS OF PEACETIME, MOBILIZATION AND LONG RANGE (2-5 YEARS) MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED) PETROLEUM, CHEMICALS, ACID, AND CASES IN LIQUID OR GASEOUS FORM. (1967年11月17日付 AR 55-32)
3. TRANSPORTATION BY WATER OF EXPLOSIVES AND HAZARDOUS CARGO

(1969年7月1日付 AR 55-228)

4. PHYSICAL SECURITY STANDARDS FOR STORAGE OF CHEMICAL AND BIOLOGICAL AGENTS AND MUNITIONS (1968年9月4日付 AR 190-3)
5. ACCIDENT/INCIDENT REPORTING — MILITARY SHIPMENTS OF EXPLOSIVES AND DANGEROUS ARTICLES BY COMMERCIAL CARRIERS. (1969年8月19日付 AR 385-14)
6. STORAGE OF STRATEGIC AND CRITICAL MATERIALS (1968年9月27日付 AR 740-19)
7. CARE OF SUPPLIES IN STORAGE, INSPECTION AND REPORTING.

4

(1963年11月12日付。DEFENSE SUPPLY

AGENCY 司令部規則。AR 740-22)

8. RESPONSIBILITIES FOR TECHNICAL  
ESCORTS OF CHEMICAL, BIOLOGICAL,  
AND ~~FE~~ ETIOLOGICAL AGENTS.

(1966年4月7日付。AR ~~7~~40-32)

ARMY REGULATION  
No. 50-21

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 21 March 1969

**CHEMICAL AND BIOLOGICAL SURETY PROGRAM  
CHEMICAL-BIOLOGICAL ACCIDENT AND INCIDENT CONTROL (CBAIC)**

*Effective 1 May 1969*

*Local limited supplementation of this regulation is permitted but is not required. If supplements are issued, Army Staff agencies and major commands will furnish one copy of each to the Assistant Chief of Staff for Force Development; other commands will furnish one copy of each to the next higher headquarters.*

SECTION	I. GENERAL	Paragraph
	Purpose.....	1
	Scope.....	2
	Explanation of terms.....	3
	II. POLICY AND CONCEPT	
	Policy.....	4
	Concept.....	5
	III. RESPONSIBILITIES	
	General.....	6
	Assistant Chief of Staff for Force Development.....	7
	The Surgeon General.....	8
	Commanding General, United States Continental Army Command.....	9
	Commanding General, United States Army Materiel Command.....	10
	Commanders of Army components of unified and specified commands..	11
	IV. KEY PERSONNEL AND EMERGENCY TEAMS	
	General.....	12
	On-scene commander.....	13
	Chemical-biological accident and incident control officer (CBAICO)...	14
	Explosive ordnance disposal (EOD) teams.....	15
	Chemical, biological, and radiological (CBR) teams.....	16
	U.S. Army Technical Escort Unit.....	17
	Medical support teams.....	18
	Provost marshal and physical security teams.....	19
	Information officer.....	20
	Other technical personnel.....	21
	V. MOVEMENT CONTROL AND REPORTS	
	Movement control.....	22
	Reports.....	23

**Section I. GENERAL**

**1. Purpose.** This regulation establishes policy, assigns responsibilities, and prescribes procedures for chemical and biological (CB) material accident and incident control for the Department of the Army.

**2. Scope.** *a.* This regulation applies to all U.S. Army, Active Army, National Guard, or Reserve commands, agencies, activities, and organizations which have responsibility for the control, movement, storage, maintenance, or security of the following type agents and related munitions:

(1) Lethal chemical agents and chemical toxins.

(2) Lethal and incapacitating biological agents.

(3) Selected incapacitating chemical agents.

*b.* Army personnel and organizations directed to assist other DOD agencies will apply guidance and procedures contained in this regulation. Army elements providing assistance to non-DOD authorities in accordance with AR 500-60 will also be guided by this regulation as the situation permits.



**3. Explanation of terms.** For the purpose of this regulation, the following terms apply:

*a. On-scene commander.* A general officer who has been dispatched to the scene of a CB accident by the commander having CBAIC responsibility. Upon arrival at the scene of the accident, the on-scene commander assumes responsibility for all operations at the accident scene.

*b. Chemical-biological accident-incident control officer (CBAICO).* The CBAICO is the officer designated by the major commander responsible for CBAIC. The CBAICO will proceed to the accident site and assume control of all emergency teams, supervising operations in the name of the commander.

*c. CBR team.* A team of technically trained and equipped individuals, consisting of personnel who are capable of detecting and identifying chemical and biological agents and performing decontamination.

*d. Chemical-biological accident.* Any situation involving CB agents that results in—

- (1) Physical damage to munitions or containers which causes spillage.
- (2) Exposure of unprotected personnel to hazardous quantities of chemical or biological agents.
- (3) Contamination of public or private land, buildings, equipment, animals, or vehicles.

## Section II. POLICY AND CONCEPT

**4. Policy.** *a.* The Department of Army will take all possible measures to prevent a CB accident or incident. However, if an accident does occur, all possible measures will be taken to save life, preserve health, and protect property.

*b.* The service or agency having custody of CB material is responsible for all actions at the scene of an accident or incident involving the material; however, the Army will take necessary measures to protect persons and property under Army jurisdiction. When requested, commanders will render assistance within their capabilities.

*c.* The public's sensitivity to the presence of CB material demands complete planning for public

(4) Fire, explosion, or natural disaster involving chemical or biological agents which causes release of or contamination by the agent.

(5) Loss, seizure, or theft of chemical or biological agents.

*e. Significant chemical-biological incident.* Any situation which, if not corrected, could result in an accident. Examples of significant CB incidents are:

(1) Malfunction or deterioration of a container or associated equipment components which increases the probability of an accident.

(2) Attempted seizure or theft.

(3) Any other possibility of contamination, explosion, or release of CB material which requires immediate action.

(4) Physical damage to containers which does not result in spillage but which could result in an accident.

*f. Minor CB incident.* An unexpected event or procedural violation, not reportable as a significant incident but which could cause damage, malfunction, or failure of a CB weapon or associated equipment. Examples of minor CB incidents are:

(1) Damage or malfunction which does not create a hazard and which the organization is authorized to repair or correct.

(2) Errors committed in handling operations which may result in accidental exposure of personnel or materiel to chemical or biological agents.

information release prior to any contingency. Guidelines on release of information are provided in AR 360-41.

*d.* Major commanders responsible for CB accident control will be prepared to dispatch a general officer (preferably with sufficient knowledge concerning chemical and biological materiel) to act as on-scene commander.

**5. Concept.** *a.* A CB accident will require the coordinated efforts of the agency having custody of CB material, whether in storage or movement, the major commander having area CBAIC responsibility, and possibly, certain technical specialists.

Control mechanism, plans, and necessary precautions must be maintained to bring any accident or incident under control as soon as possible.

*b.* The plans of the major Army commanders will include—

(1) The qualifications and method of appointment of the on-scene commander, the

CBAICO, and technical and administrative assistants.

(2) Logistical, administrative, and specialist support for the CB accident/incident control operations.

(3) Establishing and training of necessary emergency teams.

## Section III. RESPONSIBILITIES

**6. General.** *a.* All Army organizations whose mission entails the control of CB material or possible commitment of resources in support of CBAIC will provide for CBAIC in their contingency or operation plans, as appropriate.

*b.* Any commander having physical custody of CB material is responsible for control, security, and handling, and for insuring that proper maintenance and transport procedures are followed.

**7. Assistant Chief of Staff for Force Development.** The Assistant Chief of Staff for Force Development (ACSFOR) will—

*a.* Establish and monitor policy and procedures for CBAIC.

*b.* Provide the Department of the Army Operations Center with personnel to assist in handling CBAIC activities.

*c.* Establish Department of the Army Headquarters staff procedures for the immediate processing of CBAIC reports, in coordination with the Deputy Chief of Staff for Military Operations.

*d.* Review all CB accident and incident reports to determine the cause of the accident or incident, and evaluate the adequacy of corrective action.

*e.* Coordinate requests from other military services and DOD agencies for assistance in controlling and minimizing the effects of CB accidents or incidents.

**8. The Surgeon General.** The Surgeon General will—

*a.* Establish and monitor policies governing the organization, training, equipment, employment, testing, administration, and maintenance of Chemical Biological Emergency Medical Teams (CBEMT) which will advise on CB health hazards and exposure level criteria and be prepared to assist with the essential emergency medical care.

*b.* Advise on medical problems related to CB accidents or incidents.

*c.* Advise the Surgeon General of the Public Health Service of CB accidents and coordinate necessary actions.

**9. Commanding General, United States Continental Army Command.** Commanding General, USCONARC is responsible for all Army CBAIC activities throughout CONUS, except at installations commanded by other major commanders, and he will—

*a.* Organize, equip, and train CBAIC personnel and teams, and conduct at least one readiness test per quarter. A report of results of the test will be submitted to the Assistant Chief of Staff for Force Development, ATTN: FOR CM, Department of the Army, Washington, D.C. 20310, not later than 30 days after the rehearsal (exempt report, para 7-2v, AR 335-15).

*b.* Establish procedures for receiving and utilizing movement status and progress information to permit effective CBAIC response capability.

*c.* Provide CBAIC support requested by U.S. Army Materiel Command (USAMC), U.S. Army Air Defense Command (ARADCOM), or other CONUS-based major Army commands.

*d.* Assist, if requested, when CB accidents or incidents involving CB material in custody of U.S. Navy (USN), U.S. Marine Corps (USMC), or U.S. Air Force (USAF) occur in CONUS.

*e.* Assist, if requested, civilian authorities in CBAIC operations involving nonmilitary CB material.

*f.* In coordination with USAMC, develop a standardized CBAIC training program for technical escort personnel, CBR teams, and EOD teams.

*g.* Provide CBR and EOD teams to support CBAIC.

*h.* In coordination with USAMC, develop requirements for and maintain stocks of decontamination agents.

**10. Commanding General, United States Army Materiel Command.** The CGUSAMC is responsible for CBAIC on installations under his command and will assume complete CBAIC responsibility when effects of the accident or incident extend beyond the boundaries of USAMC command installations in CONUS. The CGUSAMC, will—

*a.* Organize, equip, and train CBAIC personnel and teams, and conduct at least one readiness test per quarter. A report of results of the test will be submitted to the Assistant Chief of Staff for Force Development, ATTN: FOR CM, Department of the Army, Washington, D.C. 20310, not later than 30 days after the rehearsal (exempt report, para 7-2v, AR 335-15).

#### Section IV. KEY PERSONNEL AND EMERGENCY TEAMS

**12. General.** Individuals and emergency teams will be assigned CBAIC functions as additional duties.

**13. On-scene commander.** The major commander with CBAIC responsibility will be prepared to dispatch a general officer reasonably knowledgeable of chemical or biological weapons to the scene of an accident. When the on-scene commander arrives at the accident scene, he immediately assumes responsibility for all forces and operations at the scene to include—

- a.* Security and safeguarding of all classified material involved in the accident.
- b.* Surveys to determine actual and potential hazards.
- c.* Actions to minimize the hazardous effects of CB accident or significant CB incident.
- d.* Requests for required assistance.
- e.* Reports.
- f.* Public information.
- g.* Control and logistic support of observers and other authorized personnel at the scene of a CB accident or significant CB incident. (Disaster relief logistical teams, under the provision of AR 500-60, may have to be requested.)
- h.* Claims.
- i.* Requests to local intelligence units for counterintelligence inspections and surveys.
- j.* Relations with local civilian groups.
- k.* Disposal of classified material involved in the accident.

*b.* In coordination with CGUSCONARC, establish procedures for keeping USCONARC informed of the status and progress of shipments of CB material.

*c.* Provide technical advice, CBAIC assistance, and support to other major commands when requested.

*d.* Send technical escort teams, when requested, to the CBAI site.

*e.* Coordinate CBAIC plans with the CGUSCONARC.

**11. Commanders of Army components of unified and specified commands.** These commanders will establish CBAIC in accordance with this regulation, except when directed otherwise by commanders of unified or specified commands.

*l.* Based on criteria furnished by appropriate U.S. Government agencies, certification of clearance of contamination from the CBAI site.

*m.* Decontamination and disposal of contaminated material.

*n.* Annually witnessing at least one quarterly exercise of the CB emergency teams in the command if possible.

**14. Chemical-biological accident and incident control officer (CBAICO).** *a.* A CBAICO will be designated by each commander with CBAIC responsibilities. Each CBAICO will be qualified by experience or specialist training to command the personnel and coordinate the activities associated with CBAIC.

*b.* The CBAICO will be responsible at the scene of an accident or significant incident for the duties listed in paragraph 13(a) through (k) unless relieved by an on-scene commander.

**15. Explosive ordnance disposal (EOD) teams.** *a.* EOD teams will, when required, render safe all CB weapons and advise on evacuation of hazardous items from the scene of a CB accident or incident.

*b.* The commander of the EOD team will—  
(1) Advise the on-scene commander on requirements for render-safe procedures and on evacuation of the hazardous CB material and associated components.

(2) Act as the on-scene commander, if he arrives at the scene prior to the on-scene commander and is senior to the technical escort.

*c.* For other EOD team responsibilities, see AR 75-14, AR 75-15, and FM 9-15.

**16. Chemical, biological, and radiological (CBR) teams.** *(a)* Major commanders with an area CBAIC responsibility will organize and train sufficient CBR teams to insure arrival of a team at the scene of a CB accident or significant CB incident within 4 hours (under normal weather conditions) after notification is received.

(1) Major commanders may grant waivers for this requirement for remote or isolated areas. A copy of the approved waivers will be forwarded to Chief, United States Army Nuclear Weapon Systems Surety Group, Fort Belvoir, Va. 22060.

(2) Individuals will be trained at a CBR school conducted at installation, brigade, or higher level.

*b.* The CBR team chief will advise on CB problems, including any requirement for assistance from specialists at Edgewood Arsenal and Fort Detrick, Md.

*c.* Following a CB accident or incident, CBR teams will be prepared to perform the following functions:

- (1) Assist technical escort teams.
- (2) Determine extent of hazard.
- (3) Identify the CB agent involved.
- (4) Direct the survey, marking, and recording of the contaminated area.
- (5) Recommend procedures for controlling movement of personnel and equipment into and out of the contaminated area.
- (6) Decontaminate personnel and equipment, and advise and assist in decontaminating buildings and land surfaces.
- (7) In conjunction with the leader of the CBEMT and technical representatives from Edgewood Arsenal, Fort Detrick, or other Government agencies, as appropriate, advise the on-scene commander when CB contamination has been sufficiently reduced to permit entry of unprotected personnel into the area.

**17. U.S. Army Technical Escort Unit.** *a.* Escort responsibilities. A technical escort team (see AR 740-32) accompanying a CB shipment will assume responsibility from the point of departure until

the shipment is delivered to the receiving agency. Escort responsibilities are—

- (1) Safety of the cargo.
- (2) Security of the cargo.
- (3) Protection of personnel (military and civilian) who may be endangered by a contaminated cargo.
- (4) Emergency repair or disposal of leaking containers during the shipment.
- (5) Within the team capabilities, decontamination of all objects or areas contaminated during shipment.
- (6) Within the team capabilities, render safe or disarm any munition during shipment, if necessary.

*b.* Accidents-incidents beyond team emergency capability. When a technical escort team requires assistance to localize, minimize, or eliminate CB contamination, notification and request will be made to the major commander responsible for CBAIC or to agencies or activities specified by the major commander.

(1) Prior to the arrival of the on-scene commander, the technical escort team will localize and minimize the hazard to the best of its ability.

(2) The escort team leader will brief the on-scene commander upon his arrival at the scene and receive instructions.

**18. Medical support teams.** *a.* Chemical Biological Emergency Medical Teams (CBEMT), under the command of The Surgeon General, are special teams available (within CONUS) to the on-scene commander or the commander of a military hospital to advise on CB health hazards and exposure level criteria.

*b.* Emergency medical teams, which are prepared to administer essential emergency care and evacuate the injured, will support CBAIC plans and will be formed from resources available to commanders responsible for CBAIC.

*c.* Medical personnel responding to CB accidents or incidents will carry protective clothing and equipment and the Medical Equipment Set for Chemical Agents Casualty Treatment, and other medical supplies necessary for treatment of CB casualties.

**19. Provost marshal and physical security teams.** *a.* The provost marshal will advise the on-scene commander on physical security matters and

**AR 50-21**

traffic control. He will coordinate the use of security forces with representatives of State or local governments and with other military services.

*b.* Physical security teams will be provided by the commander having CBAIC responsibility to assist the on-scene commander in securing the area and controlling traffic.

**20. Information officer.** An information officer will be appointed as an adviser and assistant to the on-scene commander. He will—

*a.* Advise the on-scene commander on information policies.

*b.* Respond to information requirements in AR 360-41.

**21. Other technical personnel.** For technical assistance that may be required at the accident site, in addition to that discussed in paragraphs 14 through 18, make the following contacts:

*a.* For accidents or incidents involving chemical agents, contact: Chief, Medical Research Laboratory at Edgewood Arsenal, Md.

*b.* For accidents or incidents involving biological agents, contact: Safety Officer, U.S. Army Biological Center, Frederick, Md.

**Section V. MOVEMENT CONTROL AND REPORTS**

**22. Movement control.** *a. General.* Complete movement information will be disseminated in accordance with procedures developed by USAMC and USCONARC (see para 9*b* and 10*b*). This information will contain: designation of consignor and consignee, schedule, route, nature of cargo, security measures, identification of carrier (including description of vehicle, if highway movement), coordination with civilian highway and law enforcement agencies, and requirements for movement progress reports.

*b. Specific requirements.* Those special requirements peculiar to the mode of transportation (highway, rail, air, or water) being utilized are contained in AR 55-8 and AR 55-56.

**23. Reports.** Chemical-biological (CB) accident and incident reports will be submitted in accordance with AR 385-14 and AR 385-40. When reporting on CB accidents, a statement will be included as to whether a general officer has or has not been dispatched to the scene of the accident.

The proponent agency of this regulation is the Office of the Assistant Chief of Staff for Force Development. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications) to Assistant Chief of Staff for Force Development, ATTN: FOR CM, Department of the Army, Washington, D.C. 20310.

By Order of the Secretary of the Army:

Official:

**KENNETH G. WICKHAM,**  
*Major General, United States Army,*  
*The Adjutant General.*

**W. C. WESTMORELAND,**  
*General, United States Army,*  
*Chief of Staff.*

Distribution:

*Active Army, ARNG, and USAR:* To be distributed in accordance with DA Form 12-9 requirements for AR, Nuclear Weapons Surety Program—A (quan. rqr. block No. 110).

\*AR 55-52  
NAVSUP Pub 465  
\*AFR 75-11  
\*MCO 4600.15A

ARMY REGULATION  
No. 55-52  
NAVSUP PUBLICATION  
No. 465  
AIR FORCE REGULATION  
No. 75-11  
MARINE CORPS ORDER  
No. 4600.15A

DEPARTMENTS OF THE ARMY, THE NAVY,  
AND THE AIR FORCE  
WASHINGTON, D.C., 17 November 1967

TRANSPORTATION AND TRAVEL

REPORTS OF PEACETIME, MOBILIZATION, AND LONG RANGE (2-5  
YEARS) MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED)  
PETROLEUM, CHEMICALS, ACIDS, AND GASES IN LIQUID OR  
GASEOUS FORM

SECTION I. GENERAL	Paragraph
Purpose.....	1
Scope.....	2
Definition.....	3
Preparing agencies.....	4
Form supply.....	5
Number of copies and routing.....	6
Supplemental information.....	7
Suspension.....	8
II. PEACETIME MOVEMENT REQUIREMENTS FOR BULK (UN- PACKAGED) CHEMICALS, ACIDS, AND GASES IN LIQUID OR GASEOUS FORM, Reports Control Symbol MTMTS-14(R1)	
Frequency and form.....	9
Period covered.....	10
Due date.....	11
Preparation instructions.....	12
III. MOBILIZATION MOVEMENT REQUIREMENTS FOR BULK (UN- PACKAGED) PETROLEUM, CHEMICALS, ACIDS, AND GASES IN LIQUID OR GASEOUS FORM, Reports Control Symbol MTMTS-15(R1)	
Frequency and form.....	13
Period covered.....	14
Due date.....	15
Preparation instructions.....	16
IV. LONG RANGE (2-5 YEARS) MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED) PETROLEUM, CHEMICALS, ACIDS, AND GASES IN LIQUID OR GASEOUS FORM, Reports Control Symbol MTMTS-50	
Frequency and form.....	17
Period covered.....	18
Due date.....	19
Preparation instructions.....	20

\*This publication supersedes AR 55-52/AFR 75-11/MCO 4600.15, 23 March 1964.

### Section I. GENERAL

**1. Purpose.** This publication provides a uniform system for reporting requirements of the military services for the movement in bulk (unpacked) of petroleum, chemicals, acids, and gases in liquid or gaseous form within the continental United States (CONUS) by all modes of commercial transportation, and to implement paragraphs D, I, P, and S, Section V, DOD Directive 5160.53. The objective is to provide traffic management and transportation services which will assure responsiveness to the logistical systems of the DOD.

**2. Scope.** This regulation is applicable to Headquarters, Military Traffic Management and Terminal Service (HQ MTMTS), Departments of the Army, the Navy, and the Air Force, and the U.S. Marine Corps.

**3. Definition.** For the purpose of these reports bulk liquids and gases are defined as commodities which are unpackaged and moved in liquid or gaseous form.

**4. Preparing agencies.** Reports will be prepared by the Departments of the Army, the Navy

(including the U.S. Coast Guard under mobilization), and the Air Force, and the U.S. Marine Corps.

**5. Form supply.** Forms will be reproduced locally on 13- x 8-inch paper. Activities within the Departments of the Army and the Air Force may reproduce forms locally; Navy and U.S. Marine Corps activities may procure forms through normal supply channels.

**6. Number of copies and routing.** The reports will be prepared in triplicate and forwarded to the Commander, Military Traffic Management and Terminal Service, ATTN: MTMTS-POS, Washington, D.C. 20315.

**7. Supplemental information.** Significant changes to reported data will be reported as they occur.

**8. Suspension.** Reporting requirements of this publication will be suspended when the reporting procedures in AR 55-36/OPNAVINST 4600.18/AFR 75-39/MCO 4600.19/DSAR 3005.4 are implemented.

### Section II. PEACETIME MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED) CHEMICALS, ACIDS AND GASES IN LIQUID OR GASEOUS FORM

Reports Control Symbol MTMTS-14(R1)

**9. Frequency and form.** Peacetime requirements will be reported quarterly on DD Form 1274-1 (Peacetime Movement Requirements for Bulk (Unpackaged) Chemicals, Acids, and Gases in Liquid or Gaseous Form) (fig. 1).

**10. Period covered.** Report covers a one-year period by quarters.

**11. Due date.** The report will be dispatched 15

workdays before the first day of July, October, January, and April.

**12. Preparation instructions.** Report will include total requirements for movement by any mode of transportation within CONUS. This does not apply to movements utilizing organic equipment. Prepare DD Form 1274-1 in accordance with instructions on reverse of form.

### Section III. MOBILIZATION MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED) PETROLEUM, CHEMICALS, ACIDS, AND GASES IN LIQUID OR GASEOUS FORM

Reports Control Symbol MTMTS-15(R1)

**13. Frequency and form.** Mobilization requirements will be reported annually on DD Form 1274 (Mobilization Movement Requirements for Bulk (Unpackaged) Petroleum, Chemicals, Acids,

and Gases in Liquid or Gaseous Form) (fig. 2).

**14. Period covered.** Report covers a 6-month period expressed in monthly increments (M-1, M-2, etc.) beginning 1 July.

**15. Due date.** The report will be dispatched 15 workdays before the first day of July.

**16. Preparation instructions.** Report will include total requirements for movement by any mode of transportation within CONUS and will

be based on the current year Joint Strategic Capabilities Plan. This does not apply to movements utilizing organic equipment. Prepare DD Form 1274 in accordance with instructions on reverse of form.

### Section IV. LONG RANGE (2-5 YEARS) MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED) PETROLEUM, CHEMICALS, ACIDS, AND GASES IN LIQUID OR GASEOUS FORM

Reports Control Symbol MTMTS-50

**17. Frequency and form.** Long range (2-5 years) requirements will be reported annually on DD Form 1274-2 (Long Range (2-5 years) Movement Requirements for Bulk (Unpackaged) Petroleum, Chemicals, Acids, and Gases in Liquid or Gaseous form) (fig. 3).

**18. Period covered.** Report covers a 2 to 5-year period.

**19. Due date.** The report will be dispatched 15 workdays before the first day of July.

**20. Preparation instructions.** Report will include any programed new commodities or unusual increase or decrease in commodities which would affect number of equipment. If the above are not known, a negative report will be forwarded. Prepare DD Form 1274-2 in accordance with instructions on reverse of form.

PEACETIME MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED) CHEMICALS, ACIDS, AND GASES IN LIQUID OR GASEOUS FORM TO: (Include ZIP Code)			DATE PREPARED	REPORT CONTROL SYMBOL MTWTS-14 (RI)				
POINT OF ORIGIN a	POINT OF DESTINATION b	COMMODITY c	GALLONS (Liquids) d	CUBIC FEET (Gases) e	QUARTERLY REQUIREMENTS (In Thousands)			REMARKS
					Quarter Beginning f	Quarter Beginning g	Quarter Beginning h	

DD FORM 1274-1, 1 Oct 67 Edition of 1 May 61, is obsolete.

Figure 1

INSTRUCTIONS

- a. Point of Origin - Indicate the name of the city, plant, installation or other point from which the movement originates. If the exact point of origin is unavailable or classified, so indicate giving as much origin information as may be available or unclassified.
- b. Point of Destination - Name the exact point of destination for the requirement movement. If the name of this point is unavailable or classified, indicate the city of destination.
- c. Commodity - Insert the name of the liquid or gaseous commodity to be moved. Dry bulk commodities are not to be submitted even though they may be susceptible to movement by "air-flow" or liquid suspension methods.
- d. Gallons - (The units of measure will be standardized for all submissions.) Check (X) the gallons column if the commodity is moved in liquid form. A product such as oxygen may be either a liquid or a gas, depending on the form in which it is shipped, and the unit of measurement should be shown as "gallons" or "cubic feet" (coln e) accordingly.
- e. Cubic Feet - (The units of measure will be standardized for all submissions.) Check (X) the cubic feet column if the commodity is moved as a gas. A product such as oxygen may be either a

- f. Liquid or a gas, depending on the form in which it is shipped, and the unit of measurement should be shown as "cubic feet" or "gallons" (coln d) accordingly.
- f, g, h, and i. Quarterly Requirements - (Quarterly Requirements) - Indicate in thousands the number of gallons or cubic feet required in each of the four quarters shown. Insert the appropriate beginning dates under each of the quarters for the current reporting period.
- j, k, l, and m. (Mode) - (j) Tank Car, (k) Tank Truck, (l) Barge, and (m) Pipeline. When justified, check (X) appropriate column. These columns will be checked only when mode selection is justified by unusual circumstances, such as knowledge that an installation can be served by only one mode.
- n and o. (F.O.B.) - (n) Origin and (o) Destination. Check (X) one of these columns only if a contract already awarded specifies F.O.B. origin or F.O.B. destination.
- p. Remarks - This column will be used to justify or explain a check (X) in the "Mode" (coln j, k, l, and m) or "F.O.B." (coln n and o) columns.

Figure 1.—Continued

MOBILIZATION MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED) PETROLEUM, CHEMICALS, ACIDS, AND GASES IN LIQUID OR GASEOUS FORM		DATE PREPARED	REPORT CONTROL SYMBOL MTWTS-15 (RI)								
TO: (Include ZIP Code)		FROM: (Include ZIP Code)									
OEP ORIGIN a	OEP DESTI- NATION b	COMMODITY c	GALLONS (Liquids) d	CUBIC FEET (Gases) e	REQUIREMENTS (In Thousands) f			REMARKS g			
					M + 1	M + 2	M + 3	M + 4	M + 5	M + 6	

DD FORM 1274, 1 Oct 67

Edition of 1 May 63, is obsolete.

Figure 2

INSTRUCTIONS

- a. OEP Origin - Indicate by number the OEP region of origin for each movement. See map attached to delineating OEP regions (fig 4, basic publication).
- b. OEP Destination - Indicate by number the OEP region of destination for each movement. See map attached to delineating OEP regions.
- c. Commodity - Insert the name of the liquid or gaseous commodity to be moved. Dry bulk commodities are not to be submitted even though they may be susceptible to movement by "air-flow," or liquid suspension methods.
- d. Gallons - (The unit of measure will be standardized for all submissions.) Check (X) the "gallons" column if the commodity is moved in liquid form. A product such as oxygen may be either a liquid or a gas, depending on the form in which it is shipped, and the unit of measurement should be shown as gallons, or cubic feet (coln e) accordingly.
- e. Cubic Feet - (The unit of measure will be standardized for all submissions.) Check (X) the "cubic feet" column if the commodity is moved as a gas. A product such as oxygen may be either a liquid or a gas, depending on the form in which it is shipped, and the unit of measurement should be shown as cubic feet, or gallons (coln d) accordingly.
- f. Requirements - Indicate in thousands the number of gallons or cubic feet required in each of the six-months shown.
- g. Remarks - This column will be used to indicate unusual circumstances which might warrant selection of a single mode.

Figure 2.—Continued

LONG RANGE (2-5 YEARS), MOVEMENT REQUIREMENTS FOR BULK (UNPACKAGED) PETROLEUM, CHEMICALS, ACIDS, AND GASES IN LIQUID OR GASEOUS FORM		DATE PREPARED		REPORT CONTROL SYMBOL MTWTS-50		
TO: (Include ZIP Code)		FROM: (Include ZIP Code)				
COMMODITY a	GALLONS (Liquids) b	CUBIC FEET (Gases) c	INCREASE d	DECREASE e	TIME PERIOD f	REMARKS g

DD FORM 1274-2, 1 Oct 67

Figure 3

INSTRUCTIONS

- a. Commodity - Insert the name of the liquid or gaseous commodity to be moved. Dry bulk commodities are not to be submitted even though they may be susceptible to movement by "air-flow" or liquid suspension methods.
- b. Gallons - (The unit of measure will be standardized for all submissions.) Check (X) the gallons column if the commodity is to be moved in liquid form. A product such as oxygen may be either a liquid or a gas, depending on the form in which it is shipped, and the unit of measurement should be shown as "gallons" or "cubic feet" (coln c) accordingly.
- c. Cubic Feet - (The unit of measure will be standardized for all submissions.) Check (X) the "Cubic Feet" column if the commodity is to be moved in a gaseous form. A product such as oxygen may be either a liquid or a gas, depending on the form in which

- it is shipped, and the unit of measurement should be shown as "cubic feet" or "gallons" (coln b) accordingly.
- d. Increase - Check (X) in the "increase" column, if applicable. Only commodities where increases will affect the number of cars required should be shown.
- e. Decrease - Check (X) in the "decrease" column, if applicable. Only commodities where decreases will affect the number of cars required should be shown.
- f. Time Period - The month and year, i.e., (5-65), the time item is expected to begin.
- g. Remarks - This column will be used to indicate unusual circumstances in connection with the commodity or the method of transportation.

Figure 3.—Continued



By Order of the Secretaries of the Army, the Navy, and the Air Force:

HAROLD K. JOHNSON,  
*General, United States Army,  
 Chief of Staff.*

Official:  
 KENNETH G. WICKHAM,  
*Major General, United States Army,  
 The Adjutant General.*

B. H. BIERI, JR.,  
*Rear Admiral, SC, United States Navy,  
 Commander, Naval Supply Systems Command.*

Official:  
 R. J. PUGH, *Colonel, USAF,  
 Director of Administrative Services.*

J. P. McCONNELL, *General, USAF,  
 Chief of Staff.*

R. K. ROTTET,  
*Lt. General, U.S. Marine Corps,  
 Deputy Chief of Staff (Plans and Programs).*

Distribution:

*Army:*  
 To be distributed in accordance with DA Form 12-9 requirements for Transportation and Travel:  
*Active Army—E(CONUS); NG and USAR—None.*  
*Air Force: M(minus overseas, Alaska, and Hawaii).*  
*Marine Corps: MARCORPS LISTS 7000-162 (10)/8145 (2).*

OFFICE OF EMERGENCY PLANNING — REGIONAL OFFICES

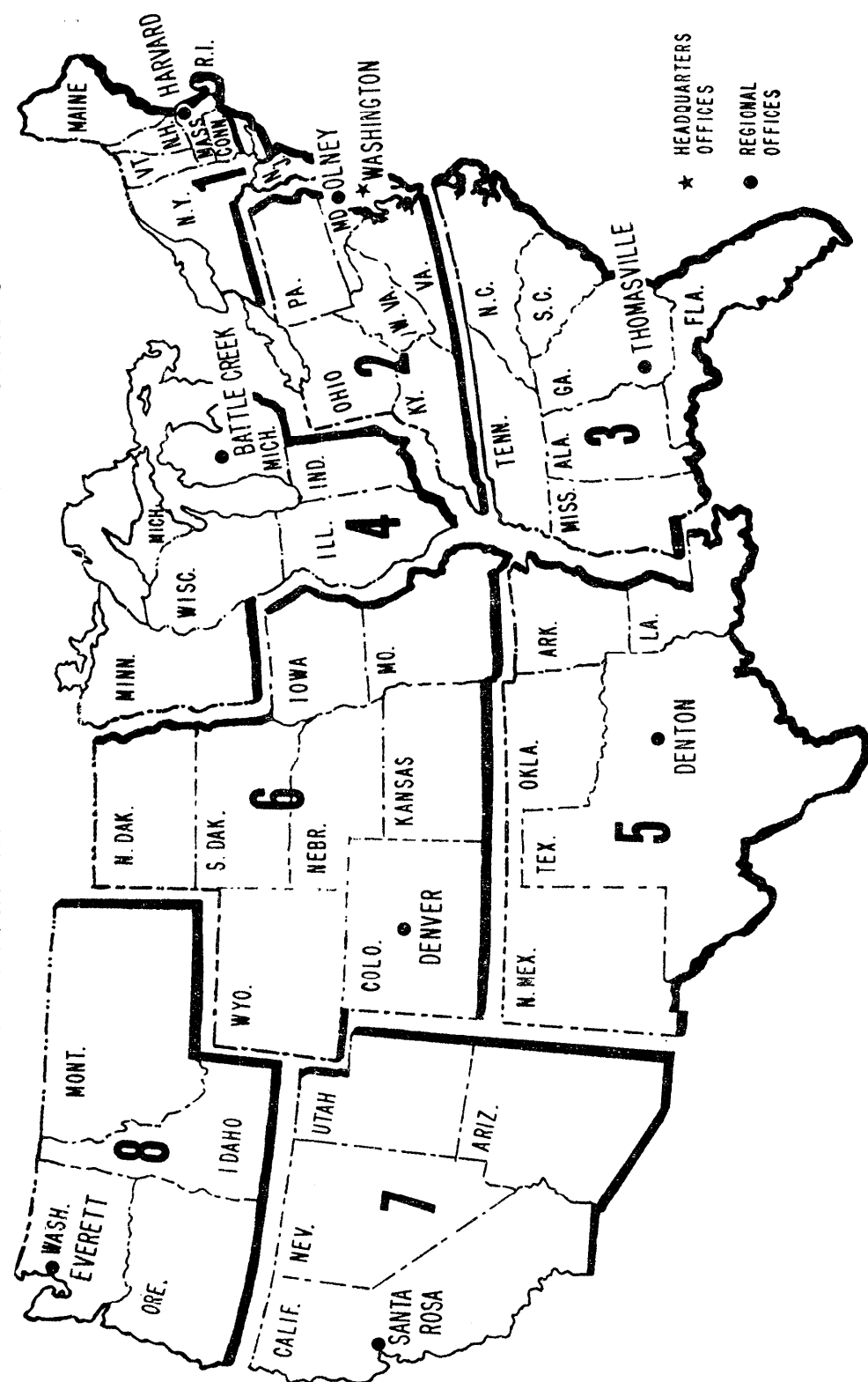


Figure 4.

ARMY REGULATION

No. 55-228

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 30 April 1969TRANSPORTATION AND TRAVEL  
TRANSPORTATION BY WATER OF EXPLOSIVES AND HAZARDOUS CARGO

Effective 1 July 1969

*This is a complete revision and reflects changes in the Code of Federal Regulations. Local supplementation of this regulation is prohibited except upon approval of the Deputy Chief of Staff for Logistics.*

*Throughout this regulation, reference is made to Title 46, Code of Federal Regulations, Parts 146 to 149. This document, published annually, with supplements issued semi-annually, may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Reference is also made to CG 108, which is an excerpt of 46 CFR 146 and contains subpart 29 only. Subpart 29 covers shipments of military explosives and hazardous munitions, but does not cover the various other hazardous materials, such as inflammable, corrosives, chemicals, to mention but a few. In the event of a discrepancy between 46 CFR 146-149 and CG 108, the former will prevail.*

CHAPTER 1. GENERAL	Paragraph	Page
Purpose and scope.....	1-1	1-1
Rules and regulations governing movement of explosives and hazardous cargo.....	1-2	1-1
Explanation of terms.....	1-3	1-1
Prohibited explosives and packaging restrictions.....	1-4	1-1
Permit to load or discharge explosives (CONUS ports).....	1-5	1-1
Explosive anchorages.....	1-6	1-1
Compatibility and quantity-distance requirements.....	1-7	1-2
Conflict with requirements.....	1-8	1-2
Certificate for vessels loaded with ammunition for transit of Panama Canal.....	1-9	1-2
<b>2. HARBOR CRAFT SERVICE</b>		
Tug and lighter permits (CONUS ports).....	2-1	2-1
Emergency equipment.....	2-2	2-1
Watchmen.....	2-3	2-1
Tugs.....	2-4	2-1
Lighters.....	2-5	2-1
Smoking.....	2-6	2-1
Fire protection.....	2-7	2-1
Lights, tools, and portable equipment.....	2-8	2-1
<b>3. HANDLING, LOADING, STOWING, AND UNLOADING</b>		
Control of personnel.....	3-1	3-1
Technical assistance in loading and stowing.....	3-2	3-1
Preparation of magazines for handling explosives.....	3-3	3-1
Preparation of hold for storage of ammunition.....	3-4	3-1
Fires and fire protection.....	3-5	3-1
Loading plan.....	3-6	3-1
Towing cables.....	3-7	3-1
Master's responsibility.....	3-8	3-2
Captain of port of responsibility (CONUS port).....	3-9	3-2
Weight per draft.....	3-10	3-2
Loading and handling.....	3-11	3-2
Securing cargo.....	3-12	3-3

\*This regulation supersedes AR 55-228, 12 January 1961, including all changes.

CHAPTER 4. SHIPPING CHEMICAL MATERIAL	Paragraph	Page
Chemical material described.....	4-1	4-1
Stowage and handling of chemical material.....	4-2	4-1
Precautionary safeguards.....	4-3	4-1
Fuels and oxidizers (missiles and rockets).....	4-4	4-1
<b>5. RETURN TO UNITED STATES OR INTRATHEATER SHIPMENTS</b>		
Authorization required before shipment.....	5-1	5-1
Screening and segregation.....	5-2	5-1
Preparation of return shipment.....	5-3	5-1
Stowage aboard ships.....	5-4	5-1
Discharging at Naval facilities.....	5-5	5-1
Water shipment of nuclear weapons.....	5-6	5-1
<b>APPENDIX REFERENCES.....</b>		A-1

## CHAPTER 1 GENERAL

**1-1. Purpose and scope.** This regulation establishes policy and provides procedures and direction governing Army-sponsored shipments of explosives and hazardous cargo aboard vessels (including barges) and applies to ships engaged in commerce on the navigable waters of the United States, its territories and possessions except the Panama Canal. The provisions of 33 CFR 113 govern the movement of explosives and hazardous cargo through the Panama Canal. Where applicable, and when not in conflict with local Government laws or the regulations of the host country, the provisions of this regulation will be implemented overseas.

**1-2. Rules and regulations governing movement of explosives and hazardous cargo.** The transportation of explosives and other hazardous cargo aboard ships of U.S. registry is governed by the provisions of U.S. Coast Guard CG 108, Rules and Regulations for Military Explosives and Hazardous Munitions (dated 1 May 1968), extracts 46 CFR 146.29 of the Code of Federal Regulations and subsequent reissues thereof.

**1-3. Explanation of terms.** The following terms are defined for use with this regulation.

*a. Explosives.* As defined in 46 CFR 146, section 146.20-1, an explosive is any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion; i.e., with substantially instantaneous release of gas and heat. A listing of explosives is contained in sections 146.20-100 Table A, 146.20-200 Table B, and 146.20-300 Table C.

*b. Hazardous cargo.* As defined in 46 CFR 146, hazardous cargo is any article or substance (other than explosive) which meets any of the criteria contained in sections 146.19-1, 146.21-1, 146.22-1, 146.23-1, 146.24-1, 146.25-1, 146.26-1 and 146.27-1. A listing of items is contained with each subpart.

**1-4. Prohibited explosives and packaging restrictions.** *a.* Items listed in 46 CFR 146.20-3 will not be offered for water movement.

*b.* U.S. Coast Guard regulations in 46 CFR 146.02-8 require that shipments of explosives or other dangerous articles offered by or consigned to the Army, Navy, or Air Force shall be packed in accordance with appropriate Department of Transportation regulations, or in containers of equal or greater strength and efficiency.

**1-5. Permit to load or discharge explosives (CONUS ports).** Operators of commercial vessels engaged in loading or discharging explosives must have on board, prior to arrival at the berth, a written loading or discharge permit from the Captain of the Port, United States Coast Guard, and must show this permit upon demand.

**1-6. Explosive anchorages.** *a.* The regulations of most ports prohibit the loading or discharging of explosives and ammunition when the vessel is secured to wharves, except where loading piers for explosives have been established. Well defined explosive anchorages also have been established for vessels to load and discharge from lighters. Facility requirements for military explosives are contained in 46 CFR 146.29-15.

*b.* Within CONUS, the Captain of the Port, United States Coast Guard, will assign berths in explosive anchorage for the loading and discharging of explosives and large caliber ammunition. The agent of the vessel will assure that no vessel carrying explosives will occupy a berth in such anchorage without first obtaining a written permit from the Captain of the Port, United States Coast Guard.

*c.* In accordance with applicable local Army-Navy agreements, commanders of applicable ports of embarkation will coordinate with commandants of Naval Districts or the commanding officers of specified Naval Ammunition Depots or their designated representatives, regarding the arrival of Government-owned or controlled ships carrying returned ammunition and explosives, and will issue applicable instructions prior to arrival of vessels.

**1-7. Compatibility and quantity-distance requirements.** Compatibility requirements published in 46 CFR 146.29-99 and/or 146.20-90 as applicable, and explosive quantity-distance standards as published in TM 9-1300-206 will be observed.

**1-8. Conflict with requirements.** The requirements of this regulation may be waived when national defense interests (military necessity) including requirements for "combat loading" are involved. Waivers to 46 CFR 146 affecting cargo ships other than public vessels may be authorized only by the Commandant, U.S. Coast Guard.

**1-9. Certificate for vessels loaded with ammunition for transit of Panama Canal.** Vessels loaded with military explosives and hazardous munitions for transit through Panama Canal will carry a certificate issued by an authority such as the commanding officer of the loading port, Coast Guard Officer, Army Ordnance Inspector, Surveyor of the National Cargo Bureau or British Board of Trade, Port Authority official, or the master of the vessel, stating that the loading was in conformity with 46 CFR 146.29, CG 108. For cargo loaded locally, a certificate signed by the Port Transportation operations officer is acceptable.

## CHAPTER 2 HARBOR CRAFT SERVICE

**2-1. Tug and lighter permits (CONUS ports).** Tugs and lighters engaged in loading or discharging vessels in explosive anchorages must carry written permits from the Captain of the Port, United States Coast Guard, and must show these permits whenever called upon.

**2-2. Emergency equipment.** For use in emergency, each barge or lighter must be provided with suitable anchor, ground tackle, foghorn and bell, and be equipped with Marine lifesaving gear and an adequate supply of approved fire extinguishers in accordance with current Coast Guard regulations.

**2-3. Watchmen.** While loaded with explosives or ammunition, each barge or lighter will at all times have a man on board as barge captain who will be on the alert to warn all approaching craft of danger.

**2-4. Tugs.** Tugs for barges carrying explosives will be furnished by the Government or lighterage company as follows: One tug at anchorage for each 10 barges or fraction thereof occupying such anchorage.

**2-5. Lighters.** Within CONUS, all lighters engaged alongside a ship in the loading or discharging of ammunition and explosives to or from the vessel will be moved to a safe distance when the work has been completed or has ceased for the day (quantity-distance standards table 31, TM 9-1300-206). Only in an emergency is loading or discharging of explosives and ammunition authorized at night unless adequate lighting is provided.

**2-6. Smoking.** Smoking will be prohibited on or in the vicinity of any vessel, barge, or lighter engaged in loading, unloading, or the transport of explosives or flammable materials except as provided in 46 CFR 146.29-29(C). In addition to the limitations of 46 CFR 146, no person will be allowed to take matches or other fire, flame or spark-producing devices into any loading or discharge area without permission from the port commander. Adequate facilities for the checking of such materials will be provided by the port commander.

**2-7. Fire protection.** Detailed instructions on fires and fire protection are contained in 46 CFR 146.29-25. Briefly, these provisions prohibit unnecessary fires; require constant attendance by a competent person for necessary fires; prescribe safeguards for power, heating, cooking or lighting fires and the attendant screen requirements on stacks; govern the use of welding or cutting operations involving the use of open flame or arc; blowing of tubes and uptakes; bunkering; fueling; transferring of lubricating and/or cleaning oils; fueling of powered lifeboats or units of the vessel machinery; display of red flag by day or red light by night while loading or unloading, and deenergizing of devices such as radios, radar capable of radiating electromagnetic energy. Section 146.29-27 requires charged firehoses during handling, loading, or unloading of military explosives.

**2-8. Lights, tools and portable equipment. a.** In addition to the provisions of 46 CFR 146-29-35, the following criteria will be observed:

(1) Members of the crew of the vessel and other persons permitted on board the vessel to aid and assist in loading, unloading, or handling military ammunition and explosives will not be permitted to carry on their persons firearms, matches, flame-producing devices, knives, bale hooks, metallic tools except as provided in *b* below, or personal packages of any description, except the prohibition against knives will not apply to the seaman's knife in possession of the members of the crew of the vessel, provided such crew-member(s) is not actually working the explosives or ammunition.

(2) Lunchboxes, pails, thermos bottles, other food containers, or personal packages of any description will not be brought on board a vessel unless such items have been examined and passed by the Coast Guard detail or other appropriate control agency. Food containers that are passed on board the vessel will not be stored in the hold in which ammunition and explosives are being worked nor will their contents be eaten in such hold.

30 April 1969

(3) Persons engaged in handling and stowage of military ammunition and explosives will not wear shoes or boots shod or strengthened with iron nails or other spark-producing metal unless such footwear is covered with rubber, leather, or other nonsparking material.

b. The Captain of the Port may authorize the use of pinch bars of metal or wood, in "breaking out" or stowing unfuzed bombs, large caliber separate loading projectiles, and packages of ammuni-

tion shipped in heavy unit weight containers. He may also permit the use of saws and hammers that are actually powered by the hand, or hand and arm, in the hold of a vessel when necessary in fitting dunnage or constructing a partition or a division bulkhead or installing protection required for the stowage of military explosives. The Captain of the Port may authorize spark proof electrically powered or pneumatic saws or hammers, but they will not be used in any compartment containing military explosives.

30 April 1969

### CHAPTER 3 HANDLING, LOADING, STOWING, AND UNLOADING

**3-1. Control of personnel.** In addition to the provisions of 46 CFR 146.29-21, all persons having business on board vessels or lighters loading or discharging explosives, other than members of the crew or stevedores properly employed in connection herewith, must have a pass either from the proper military authorities or from the Captain of the Port. No person who, in the judgment of the Coast Guard Officer in charge of the Coast Guard detail, is considered as being under the influence of intoxicating liquor or drugs will be permitted on board a vessel during the handling, loading, and unloading operations.

**3-2. Technical assistance in loading and stowing.** a. In all cases where ammunition and explosives (except Class C) are to be loaded aboard a vessel where no Coast Guard supervisory personnel are in attendance, qualified ordnance personnel will be requested to advise in the handling and stowing of explosives aboard ship and will be present for the purpose of giving technical advice on laying out the cargo plan and in the handling and stowing of the explosives.

b. The TM 9-1300, 9-1900 and TM 38-250 series manuals contain a description of DA explosives and ammunition and appropriate safety precautions.

**3-3. Preparation of magazines for handling explosives.** The provisions of 46 CFR 146.29-73 will be observed prior to loading and discharging operations involving military explosives.

**3-4. Preparation of hold for stowage of ammunition.** The provisions of 46 CFR 146.29-81 will be complied with. To the extent possible, sheathing and dunnaging will be completed prior to loading operations.

**3-5. Fires and fire protection.** When handling explosives, vessels must be able to get under way promptly in the event of fire, bad weather, or other emergencies. Power will be available at all times. Axes will be readily available for cutting mooring lines. A sufficient number of personnel will remain on board in a state of readiness to get under way

immediately. Under no circumstances will a ship shut down its propulsion machinery without obtaining permission from the commanding officer of the terminal and/or depot. Where feasible, ships loading or discharging explosives will berth bow out. The provisions of the 46 CFR 146.29-25 will be observed.

**3-6. Loading plan.** a. Prior to loading in CONUS ports a written application for permit to load military explosives and lethal military chemicals (except material covered in 46 CFR 146.29-100 as Coast Guard Class 1) accompanied by a preliminary draft and prestowage plan (para 5-8, DoD Regulation 4500.32R (MILSTAMP) must be submitted and approved by the District Commander of the U.S. Coast Guard, Captain of the Port or other officer designated by the District Commander as required in 46 CFR 146.29-13. A copy of the approved loading plan will be furnished to the master of the ship prior to loading operations. Deviations from the approved loading plans must be approved before loading is continued.

b. In addition to the approvals required in a above, the Commander, Military Sea Transport Service, or his area representative must approve the loading plan if the cargo is to move on board a MSTS or MSTS-chartered ship.

c. SHIPS LOADED AT FOREIGN PORTS WITH DANGEROUS OR HAZARDOUS CARGO FOR DELIVERY TO THE CONUS WILL BE REQUIRED TO OBSERVE THE PROVISIONS OF THIS PARAGRAPH SINCE A LOADING PLAN IS REQUIRED BY THE CAPTAIN OF THE PORT AT THE OFFLOADING PORT BEFORE AN OFFLOADING PERMIT IS ISSUED.

**3-7. Towing cables.** While on ammunition or explosives berth, a suitable hawser for towing will be made fast to the ship's structure with slack coiled on deck and hung through chocks on the offshore side of the ship so that it may be taken in tow without assistance from on board. At least one cable will be so fitted forward and one aft. A short

messenger (pendant) will be kept bent on the eye of the hawser to facilitate the taking in of the hawser on board a tug.

**3-8. Master's responsibility.** *a.* The master of the ship is responsible for the safety of his ship and is responsible for insuring that the explosives and hazardous cargo are properly stowed in accordance with the law and the various regulations pertaining to the safe transportation by sea, and that various types are kept separated as required by regulations.

*b.* When, in the opinion of the master, the cargo is not being properly stowed or loaded as required by law and regulations, the master has the authority to stop the loading at once, and have the matter placed before the proper Port Authority for decision.

**3-9. Captain of port responsibilities (CONUS port).** The Captain of the Port will provide—

*a.* An emergency (sinking area) anchorage (see TM 9-1300-206).

*b.* A self-propelled fireboat or tug having pumping capacity of at least 4,000 gpm should be readily available for each pier having four or less berths for ocean-going vessels. If it is not stationed at the pier, the fireboat or converted tug should be within 3 minutes running time from the pier, and should be provided with direct telephone or radio communication facilities.

**3-10. Weight per draft.** *a.* Compliance with the provisions of 46 CFR 146.29.41 is mandatory. In addition, drafts to be lifted by 5 ton booms which are rigged as a union or burton system (see TM 55-513) will not exceed 3 long tons.

*b.* Weights in excess of 3 long tons may be lifted if booms are rerigged to accommodate the additional load, winch capacity is not exceeded, and all other gear is in conformance with the safe working load to the satisfaction of the responsible master of the vessel and/or MSTTS representatives.

*c.* When booms of a greater lifting capacity are available and required, the method for rigging and the gear required to insure a safe working load will be as established in accordance with the determinations of the master of the vessel involved and/or MSTTS representative.

**3-11. Loading and handling.** *a.* Persons engaged in the handling and storing of explosives and/or hazardous cargo must be closely supervised and

warned frequently of the necessity of using utmost caution in the performance of their duties. A safety program will be maintained at all facilities subject to the provisions of this regulation within the policy, scope, and responsibilities of the Army Safety Program prescribed in AR 385-10. During the handling of toxic oxidizers, fuels, or chemical agents, protective equipment will be provided and worn by personnel. Handling of explosives and chemical, biological, and radiological (CBR) material will be kept to a minimum so as not to cause packages to leak or become damaged. When shut-off valves are a part of the shipping container, they will be safety wired in the appropriate position (usually off) and will be protected by a fibreboard sleeve.

*b.* Mixed shipments of ammunition and/or hazardous materials will be loaded aboard ships in accordance with the provisions of 46 CFR 146.

*c.* Explosives and hazardous cargo will be stowed in such a manner as to minimize the danger of fire and explosion. This can be accomplished by stowing the various groups separately and in such a manner that they will not shift. Explosives and hazardous cargo will be stowed within and "on deck" in accordance with the stowage charts in 46 CFR 146.

*d.* Stowage of explosives and hazardous cargo aboard barges will be subject to the provisions of 46 CFR 146.

*e.* Materiel not listed in 46 CFR 146 will require an analogous assignment of an explosive class by the shipper (TM 9-1300-206). This identification by analogy will accord handling in the same manner as a similar type listed in the CFR.

*f.* Actions will be taken to insure that ship's cargo gear and stevedore gear are in good and safe working order (see 46 CFR 146.29-39). Sling loads must not under any conditions be dragged across the hold or allowed to come in contact with stanchions or hatch coamings. Under no circumstances will slings be returned by hooking them to the tackles and then pulled from under the load. Sling loads will be lowered carefully, contents removed, and sling returned. On lifting operations which require workmen to be under swinging loads, a signalman will be at the immediate site and will have a warning whistle of clear and penetrating sound to warn workmen when the load is coming over or in.

*g.* Cargo nets alone will not be used for lifting ammunition containers. In hoisting and lowering ammunition containers with cargo nets, a rigid wooden platform will be placed in the center of the net upon which the containers can be stacked in such a manner as to prevent shifting.

*h.* Nonsparking metal tools will be used where necessary. Packages of explosives must not be thrown, dropped, rolled, dragged, walked on, or slid over each other. Packages marked "THIS SIDE UP" will be handled in this manner and will be so stowed.

*i.* Packages or explosives or ammunition damaged or broken in transit may be recovered, provided recovering is practicable, but only at specifically designated areas, and as authorized by competent authority.

*j.* Packages containing explosives and hazardous material which show signs of leakage must be

rejected. Defective or leaking packages or containers may be detected by a discoloration of the container, with or without an odor, or, in the case of unboxed cylinders or projectiles, a corroding of the material near the leak.

*k.* Ammunition shipments in CONUS containers will comply with 46 CFR 146.29-90.

*l.* Only approved type electrical MHE will be utilized in handling explosives aboard vessels transporting military ammunition.

**3-12. Securing cargo.** Particular attention is directed to the necessity for thorough inspection and observance of methods employed for securing cargo during and after loading. Methods must conform to approved and accepted practice. Strict attention will be paid to the securing of the hatch beam fastenings, and battens.

## CHAPTER 4

### SHIPPING CHEMICAL MATERIAL

**4-1. Chemical material described.** *a.* Chemical shipments are made in two categories. They are ammunition and bulk shipments of chemicals.

(1) *Ammunition.* 46 CFR 146.29-100, Classes II-D, II-E, II-F, II-G, II-H, II-J, XI-A and XI-B contain a specific listing of chemical ammunition, required marking, DOT classification, hazards present in each class, appropriate countermeasures to protect personnel, and instructions for all handling and for stowage aboard ship. Items listed in the above classes containing two or more components that are assigned a hazardous classification will be handled under the procedures prescribed for the higher rated components.

(2) *Bulk shipments of chemicals (other than ammunition).* When shipped in bulk or packaged, chemicals must be shipped in conformity with the regulations for the appropriate classification of the chemical as indicated in the "Description" column of the tables in 46 CFR 146.29-100. The classifications are—

(*a.*) Flammable liquids (see 46 CFR 146.21).

(*b.*) Flammable solids (see 46 CFR 146.22).

(*c.*) Oxidizing materials (see 46 CFR 146.22).

(*d.*) Corrosive liquids (see 46 CFR 146.22).

(*e.*) Extremely dangerous poisons—Class A (see 46 CFR 146.25-5).

(*f.*) Less dangerous poisons—Class B (see 46 CFR 146.25-10).

(*g.*) Tear gasses or irritating substances—Class C (see 46 CFR 146.25-15).

*b.* 46 CFR 146.25-100/146.25-200 and 146.29-300 contain a listing of chemical agents, characteristic properties, required labeling, stowage requirements and restrictions for movement.

*c.* Radioactive material will be labeled in accordance with the provisions of 49 CFR parts 170 to 190 (T. C. George's Tariff No. 19, para 173.414 or successive issues thereof).

*d.* Nuclear weapons are listed under Class X-B, 46 CFR 146.29-100, which directs handling and transportation in accordance with pertinent military service directives. AR 55-203 governs the transportation of nuclear weapons, components and nuclear weapons material.

**4-2. Stowage and handling of chemical material.** *a.* Chemical material will be transported on non-passenger carrying ships (except guards and/or technical escorts) equipped with watertight bulkheads and will be stowed in accordance with 46 CFR 146.

*b.* The Chemical Officer of the Army command will be called upon to render assistance in the event of an accident/incident.

**4-3. Precautionary safeguards.** Protective equipment such as masks, gloves, clothing, and suitable neutralizing agents will be available to personnel handling toxic gases, etiologic agents, and white phosphorus. When toxic chemicals are to be handled or stored, port commanders will request Army agencies to assign qualified personnel to instruct handling personnel in the use of the protective equipment and/or provide technical advice in connection with operations if such local personnel are not available. If technical escorts are assigned to the shipment, they will be utilized for such purposes.

**4-4. Fuels and oxidizers (missiles and rockets).**

*a.* Handling and stowage of fuels and oxidizers are governed by the provisions of 46 CFR 146.22-1 through 146.29-59 and 146.29-11(b). A list of inflammable solids and oxidizing materials are contained in 46 CFR 146.22-100 and 146.29-100.

*b.* In addition to the above restrictions, unrelated activity should be kept to a minimum in the operations area when these materials are being handled. If a leaking container is detected, only personnel with complete protective clothing equipment will be permitted in the area. Constant sur-

veillance and supervision will be maintained by technically qualified personnel at all operations involving the handling and stowage of this material.

c. Guided missile oxidizers and fuels are of high quality or concentration, usually very volatile, and many will react violently if permitted to mix with others. "On Deck" stowage is preferred aft with

oxidizer getting the aft location in preference to fuels. Strict compliance with 46 CFR 146.29-56 and 100 is mandatory. In the absence of instructions to the contrary, drums of these chemicals will be stowed in a vertical position at all times, and should be protected from the direct rays of the sun or excessive heat.

## CHAPTER 5

### RETURN TO UNITED STATES OR INTRATHEATER SHIPMENTS

**5-1. Authorization required before shipment.** Explosives, ammunition, or chemicals will not be returned to the United States or shipped to other oversea commands until specific authorization has been obtained from the Department of the Army or from an appropriate ammunition control agency.

**5-2. Screening and segregation.** a. Screening and segregation under the supervision of competent ammunition inspectors will be carried out to prevent the offering for movement of unsafe ammunition, explosives, and chemicals. Particular attention is called to containers that have been exposed to weather and may contain deteriorated materials or corroded ammunition. Unsafe or rejected ammunition, explosives, and chemicals will be disposed of locally by burning, demolition, neutralization, or dumping at sea.

b. Materiel such as vehicles, weapons, salvaged empty projectiles, cartridges, cartridge cases, and other such supplies and equipment, likely (suspected) to have been explosive loaded or contaminated, will be individually inspected by the shipper prior to shipment from oversea commands. The shipper is required to affix a Materiel Inspection Tag (DA Form 9-1) in accordance with paragraph 10, AR 740-20, indicating that the item or shipment has been inspected and that all explosives have been removed prior to shipment. Port commanders will refuse to accept such shipments without shipper certification. Ocean manifests will be annotated to indicate that the shipment has been inspected.

**5-3. Preparation of return shipment.** Explosives will be shipped in approved containers, whenever possible. Improvised containers must equal or exceed specifications of the approved container. Marking and addressing of containers will be in accordance with DOD Regulation 4500.32R, Military Standards Transportation and Movement Procedures/and MIL-STD 129. Military guards and/or technical safety escorts for military shipments will be in accordance with appropriate regulations.

**5-4. Stowage aboard ships.** Normally, not less than 500 short tons of ammunition, explosives, and chemicals will be returned in any one ship. Explosives, ammunition, and chemicals will not be loaded on the same ship with scrap. Strict compliance with 46 CFR 146 through 149 and CG 108 is mandatory. Ammunition, explosives, and chemicals will be stowed separately from other cargo and top-stowed or so loaded that removal upon arrival at destination can be accomplished without having to unload other cargo before the ship is docked. A manifest listing the ammunition, explosives, or chemicals indicating the hold and location will be furnished to the master (see 46 CFR 29-14). The ammunition listed on the manifest will be described by the shipping name as shown in 46 CFR 146-149 (CG 108) and will be prepared in accordance with the provisions of chapter 5, DOD Regulation 4500.32R.

**5-5. Discharging at Naval facilities.** When Army-responsible ammunition and explosive shipments are scheduled to be discharged at tidewater Naval facility, Army may, on valid request, furnish a liaison officer with adequate qualified personnel under his control, for the purpose of furnishing technical assistance to the Naval facility regarding the segregation and consolidation of shipments concerned. The terminal costs incident to discharging of vessel for Army-responsible ammunition and explosive shipments at a Naval facility will be borne by the service operating the terminal on a reimbursable basis. The application of this provision will apply at CONUS tidewater Naval facilities as well as oversea activities husbanding Army-responsible ammunition and explosive shipments.

**5-6. Water shipment of nuclear weapons.** a. The courier officer is responsible for the safety and security of the shipment while it is in his custody.

b. The ship's master is responsible for insuring that the nuclear cargo is properly stowed in accordance with the law and the regulations pertaining to the safe transportation by sea of these munitions. The master and/or crew will be af-



forded access to the storage areas whenever the safety of the ship is concerned. When such access is required, the courier and/or crew will be afforded access to the storage areas whenever the safety of the ship is concerned. When such access is required, the courier and/or guard(s) will accompany the crewmember. The two-man rule will be observed at all times.

c. When, in the opinion of the master, the cargo is not being properly stowed or loaded as required by law and regulations, the master will stop loading at once, and the matter will be placed before the proper port authority for decision.

d. Nuclear weapons will receive a minimum of handling upon arrival at the terminals. If they cannot be delivered to the pier and loaded aboard ship immediately, they will be stored in the delivering carrier equipment unless there exist compelling reasons to the contrary. In the handling and transferring of these weapons, extreme care will be exercised to insure minimum exposure to shock. Positive actions will be taken to avoid accidents, incidents, or damage. Immediately prior to use, all mechanical handling equipment will be tested to insure that it is in good operating order. Experienced personnel will be used as operators of such equipment.

e. Loading and unloading operations will be conducted during daylight hours whenever possible. If night operations are required, the lighting requirements specified in this regulation will be observed.

f. Quantity-distance criteria for placement of railcars and/or trailers containing nuclear weapons and other railcars and/or trailers containing incompatible cargo is contained in TM 9-1300-206 and TM 39-20-12.

g. Prior to use with nuclear weapons, the ship's cargo or jumbo boom (or crane) will have a valid Coast Guard inspection certificate which states that the gear is in good operating condition under current American Bureau of Shipping requirements. To insure proper spooling of the wire rope on the drums of the winches and to evaluate the adequacy of working equipment, a test load at least three times the weight of the weapon(s) to be han-

dled will be hoisted and lowered through the full cycle to the same position used when handling these weapons provided the weight does not exceed the rated safe working capacity of the boom. When practicable, winches will be operated in low gear to obtain a slow even speed.

h. Only four-legged slings with approved safety hooks will be used for the handling of nuclear weapons. Slings will have a rated capacity of 50 percent greater than the weight of the weapons to be lifted and have a minimum breaking strength of five times the rated capacity of the sling. Slings will be tested immediately prior to their use.

i. Groups of nuclear weapons will be stowed in compartments above the waterline and more than eight feet from the sides of the ship. Nuclear weapons will be stowed and properly secured with their long axis athwartship and in a linear or planar array as provided in TM 39-20-12. Weapon containers must be accessible at all times for in-transit inspections and monitorship with detection equipment. Stowage of Coast Guard regulated label or noncompatible cargo in the same compartment is prohibited. Nuclear weapons will remain in their original stowage location until discharged at port of destination and, to the extent possible, they will be the last on and first off the ship. Where possible, individual destination hatch stowage will be accorded. When not possible, multideestination nuclear weapon shipments will be arranged in the compartment in such a manner that offloading personnel will not have capability of visual or physical penetration to the beyond port of call nuclear weapon material.

j. If lighterage is required in loading or unloading, the appropriate port authority will provide adequate covered lighterage and assure that approved handling equipment is used. Prior to use, the port commander or his designated representative will inspect the lighter to determine that it is in a good state of repair.

k. Tritium monitoring is required when certain Army weapons are transported on Navy vessels. Courier officers escorting such shipments must be capable of using monitoring equipment provided for this purpose.

## APPENDIX REFERENCES

1. Department of Transportation Regulation 49 CFR 170-190 (T. C. George's Tariff 19. ICC No. 19 and subsequent changes and reissues thereof).
2. Federal Aviation Administration Regulation 14, CFR 103, Transportation of Dangerous Articles and Magnetized Materials (Official Air Transport of Restricted Articles Tariff No. 6-F, CAB No. 82 or reissues thereof).
3. TM 38-250 Packaging and Handling of Dangerous Materials for Transportation by Military Aircraft.

30 April 1969

AR 55-228

The proponent agency of this regulation is the Office of the Deputy Chief of Staff for Logistics. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications) to the Deputy Chief of Staff for Logistics, ATTN: LOG/TR-TEB, Department of the Army, Washington, D.C. 20310.

By Order of the Secretary of the Army:

Official:

KENNETH G. WICKHAM,  
Major General, United States Army,  
The Adjutant General.

W. C. WESTMORELAND,  
General, United States Army,  
Chief of Staff.

Distribution:

*Active Army:*

DCSPER (1)  
DCSOPS (2)  
DCSLOG (10)  
ACSFOR (5)  
CINFO (1)

CofEngis (2)  
USCONARC (20)  
USAMC (10)  
MTMTS (6)  
Seventh US Army (10)

USARPAC (10)  
USARAL (5)  
USARSO (5)  
ANTCOMUSARO (2)

*NG:* None.

*USAR:* None.

For explanation of abbreviations used, see AR 320-50.

## MILITARY POLICE

PHYSICAL SECURITY STANDARDS FOR STORAGE OF  
CHEMICAL AND BIOLOGICAL AGENTS AND MUNITIONS

	Paragraph
Section I	
Purpose.....	1
Scope.....	2
Explanation of terms.....	3
Application.....	4
Physical security plans and surveys.....	5
Section II	
Security force.....	6
Entry control.....	7
Package, materiel, and property movement control.....	8
Barriers.....	9
Protective lighting.....	10
Intrusion detection systems.....	11
Guard communications.....	12
Supporting security facilities.....	13

## Section I. GENERAL

**1. Purpose.** This regulation prescribes minimum criteria and standards for physical security measures, as well as guidance for developing the physical security plan, for safeguarding chemical and biological (CB) agents and munitions specified in paragraph 2. Wherever inconsistencies exist between this regulation and Department of the Army/Defense approved safety rules, the more stringent criteria will apply.

**2. Scope.** This directive applies to all U.S. Army commands, agencies, activities, organizations, and elements having responsibility for storage of CB agents and munitions requiring special security controls. For the purpose of this publication, CB agents and munitions are those designated in accordance with AR 11-17 for inclusion in the Chemical and Biological Weapons Surety Program (short title: CBS Program). This regulation applies only to bulk agents and loaded war reserve-type munitions stored in depots, field units, or in temporary storage at manufacturing plants awaiting shipment to depots.

**3. Explanation of terms.** *a. Access.* Access, as applied to CB agents and munitions, means physical proximity in such a manner as to allow the opportunity to commit an act which may result in a malfunction of the munition or release of the agent,

loss or injury to life or property, and/or compromise of classified information.

*b. Designated areas.*

(1) *Controlled area.* A designated area, adjacent to or encompassing a CB limited or CB exclusion area, within which uncontrolled movement does not permit access to the protected materiel, designed for the principal purpose of providing administrative control and safety, and a buffer zone of security for CB limited and CB exclusion areas.

(2) *Limited area.* A designated area containing one or more protected items of materiel. Within this area guards or internal controls, depending on the nature of the activity, can prevent unauthorized access to the protected materiel.

(3) *Exclusion area.* A designated area containing one or more protected items of materiel of such a nature that mere access to the area constitutes access to the materiel.

*c. Security force.* Personnel who are specifically trained, equipped, and assigned to perform the mission of safeguarding CB agents and/or munitions.

*d. Security alert team (SAT).* Initial reaction team, trained and armed, with the necessary mobility, communications, that responds to alarms,

emergencies, or irregularities. This team is in addition to the posts and patrols necessary to meet other security requirements. The SAT should not normally sit idle in reserve but be used to augment the regular security force as a roving patrol or in other supplementary duties.

*e. Backup alert team (BAT).* Team(s) composed, trained, equipped, and normally used as above that are designated to reinforce the SAT in event of alarms, emergencies, or irregularities.

*f. Reserve force (RF).* A security element designated to support the on-duty security force. This element may be a provisional force but may not be so constituted as to reduce resources assigned to other functions essential to the safety and security of the security interest.

*g. Augmentation reserve force (ARF).* A separate reserve element trained and capable of augmenting a security force, as required.

*h. Physical security waiver.* A temporary (not to exceed 1 year) written authorization granted by The Provost Marshal General, Department of the Army, allowing a specific unit or installation to postpone compliance with a requirement imposed by this regulation.

*i. Physical security exception.* A permanent exemption of a requirement imposed by this regulation, approved by The Provost Marshal General, Department of the Army.

**4. Application.** *a.* Commanders will insure that, as a minimum, the physical security measures specified in this regulation are applied to prevent unauthorized or inadvertent entry into sites, access or damage to, or destruction of the CB agents and munitions. Continental United States and oversea commanders of tactical units in the field will promulgate adequate physical security measures commensurate with this regulation and the tactical, geographical, political, and/or hostile force implications or situations.

*b.* The degree of security required is dependent upon specific types of CB agents and containers. Agents and munitions will be categorized as follows:

- Category I—*Biological Agents in Munitions*  
*Chemical Toxins in Munitions*
- Category II—*Bulk Biological Agents*  
*Bulk Chemical Toxins*

- BZ filled munitions*  
*VX filled munitions*  
*GB filled munitions*
- Category III—*VX Bulk Containers*  
*GB Bulk Containers*
- Category IV—*Mustard, Phosgene, etc., in Munitions*  
*Mustard, Phosgene, etc., in Bulk Containers*

CB agents and munitions will be stored in CB exclusion, CB limited, or CB controlled areas, dependent upon their specific category, and in accordance with Table I.

*c.* Where the provisions of this regulation cannot be met, the responsible commander will request a waiver or exception of that particular security requirement. Requests for exceptions and waivers will be forwarded through channels to The Provost Marshal General, Department of the Army, for approval.

**5. Physical security plans and surveys.** *a.* A current physical security plan will be prepared for each site, facility, or organization storing or handling CB agents and munitions. This plan will be developed in accordance with guidance contained in this regulation, FM 19-30, and TM 3-250. The basic element of each security plan will be an armed and well-trained security force of sufficient strength and composition to insure the positive functioning and enforcement of established security measures and procedures. Incorporated as part of the security plan will be information on available aids and adjuncts to the guard force, such as barriers, protective lighting, intrusion detection alarm systems, guard communications, entry control and pass and badge systems, sentry dogs, and other applicable security measures.

*b.* Annual physical security surveys of sites or facilities storing or handling CB agents and munitions will be conducted in accordance with AR 190-13. When possible, security plans will be integrated with those of the host and/or nearby military installations. Emergency security plans will be coordinated with appropriate municipal, county, and state authorities, wherever possible, to establish procedures for the control and dispersal by civil authorities of civil disturbances outside the installation. These emergency plans will be executed only when civil disturbances are directed

against the installation in such a manner as to interfere with normal military operations. The control of disturbances outside a military installation

is normally a civil responsibility. Wherever possible understandings will be written to insure continuity of support.

## Section II. SECURITY CONTROL MEASURES

**6. Security forces.** *a.* Guards will be armed and provided with complete, clearly written special orders that are thoroughly understood prior to assumption of duty.

*b.* Guards will be fully capable of performing all normal and emergency guard functions and will possess security clearances commensurate with the classification of the materiel they are assigned to protect.

*c.* All personnel selected to perform security duty at units and installations having CB agents and munitions will be required to undergo a basic security training program prior to their initial assignment of this type duty. In addition, commanders will establish a security training program to insure continued proficiency of the guard force. As a minimum, this training will include:

- (1) Care and use of assigned weapons.
- (2) Legal authority, responsibility, and jurisdiction of guards on duty, to include search and seizure and use of firearms.
- (3) Duties in the event of alert or emergency, such as intrusion, fire, explosion, attempted seizure, civil disturbance, or natural disaster.
- (4) Common forms of sabotage activity.
- (5) Location of hazardous and vulnerable equipment and materiel.
- (6) Location of fire protection equipment, decontamination stations, electrical switches, and first aid facilities.

*d.* Each guard will be thoroughly familiar with his assigned (guard) weapon. Familiarization will include assembly, disassembly, care and maintenance precautions, and safety features of the weapon, and firing the qualification course prescribed in appropriate directives at least once each 12 months.

*e.* The composition and equipment of the security force used to safeguard CB agents and munitions will be dependent upon the location and type of facility. Planning for security forces will include the availability of SAT, BAT, and RF that are organized in such a manner and located at such a distance so as to assure the response to

an irregularity within the time limitation specified in Table I.

**7. Entry control.** *a.* Procedures governing entrance control to CB limited and/or CB exclusion areas will be formalized and maintained in order to insure positive identification of all persons prior to admission. Entry control rosters will be prepared by the responsible commander, listing only those personnel authorized entry on a continuing basis. Security identification media will be prepared for personnel listed on the entry control roster and will be fabricated in accordance with AR 606-5.

(1) Prior to entering a CB limited area all personnel will identify themselves to the gate guard. Positive identification such as DD Form 2A or, in the case of civilian government employees, an employee identification card may be used. Civilians other than those described above who require access to the CB limited area will present identification that has been verified by a responsible individual of the organization or unit who controls access to the CB limited area. The guard will check the presented identification and compare the photograph (if available) with the person requesting admittance. Once an identification and need for entry has been established, a pass will be issued to the individual who will receipt for it in a pass register maintained by the gate guard.

(2) Except as indicated below, entrance to CB exclusion areas will be restricted to properly cleared personnel who have an established need for entry. The number of such persons will be held to a minimum. This requirement is not intended to preclude entry of uncleared installation maintenance and contractor personnel into the exclusion area if they are under close observation by at least one properly cleared and authorized person.

(3) Entry into CB exclusion areas will require the exchange of the issued security pass for a registered exclusion area badge. If a security pass had not been issued because a CB limited area

does not encompass the exclusion area, positive written identification, verified by a responsible individual of the organization or unit that controls the exclusion area, will be presented in lieu of the security pass. Identification will be accomplished at the entrance to the CB exclusion area. This rule will not preclude a responsible officer from taking necessary emergency actions which, in his judgment, are required to reduce or eliminate hazards to life and property.

b. All entry control rosters will be authenticated by the site/storage commander or his designated representative only. Each roster will have an expiration date not to exceed 6 months from date of distribution. Additions and deletions to entry control rosters may be by authenticated individual control cards in lieu of the lists. When card files are used each card will have a fixed expiration date.

c. Admission of persons other than those on the entry control roster will be specifically approved by the unit or installation commander or his authorized representative only. Such individuals will be issued a distinctively colored badge and be escorted at all times while in the CB exclusion area. Escorts or other internal control measures will be established to prevent unauthorized access to the protected items. Escorts for visitors will be provided a duress code word or phrase, known to all guard force personnel, to be used as an alarm should the escort be placed under duress or attacked. This code word or phrase will be changed periodically to prevent compromise.

d. Positive enforcement measures will be prescribed to insure efficient working of the personnel identification and control system. Such measures include, but need not be limited to:

(1) Selecting guard personnel for duty at entrance control points on the basis of their alertness, quick perception, and good judgment.

(2) Establishing a uniform method of handling and wearing security identification badges.

(3) Arranging entrances to CB exclusion areas so that arriving and departing personnel are required to pass in single file in front of the guard. All new sentry gate houses constructed for U.S.-occupied exclusion areas will conform to OCE Standard Drawing 27-05-33.

(4) Positioning badge racks or containers so that they are accessible only to the guard. Office,

Chief of Engineer's Standard Drawing DEF 27-05-33 contains details of an acceptable pass and badge rack and location.

(5) Appointing a responsible custodian to perform control procedures for the issue, turn-in, and recovery of security identification badges.

e. A responsible custodian will be appointed by competent authority to issue, control, and maintain adequate records of all keys and locks to buildings or areas containing protected materiel. Padlock series using a common key (more than one padlock opened by the same key) will not be used, and multiple keys to the same lock will be held to an absolute minimum. Keys will be made available only to authorized persons. All keys will be inventoried at the beginning of each guard shift and a record will be maintained of these inventories.

(1) Key registers and depositories will be provided in areas where keys are secured during nonworking hours. Guards will make regular checks of the depositories, key boards, and key registers to insure that all keys are accounted for.

(2) Keys to locking devices for the CB exclusion area gates and the intrusion alarm system will not be retained by an individual guard operating alone at the exclusion area gate, when the exclusion area has been secured.

(3) Key padlocks will be rotated at least every 6 months to prevent unauthorized use of duplicate keys. Records of this action will be maintained. All locks will be replaced when compromise is suspected. Serial numbers of locks will be obliterated and a unit number will be stamped on each lock for control purposes.

**8. Package, materiel, and property movement control.** a. A positive system will be instituted to control movement of packages, materiel, and property into an out of CB limited and/or CB exclusion areas. Limitations as to types of property authorized, persons allowed to move authorized property, and approved points of entrance and exit will be defined in written guard orders.

b. DA Form 1818 (Individual Property Pass) may be used for controlling movement of property and equipment into and out of any protected area.

c. The control system will provide for a spot-check of personnel and materiel and routine inspections of vehicles entering and leaving the areas. Privately-owned vehicles are prohibited

from entering CB limited and/or CB exclusion areas.

**9. Barriers.** a. *Structural barriers.* A minimum of one structural barrier for a permanent CB exclusion area will be installed. Permanent CB limited areas, where they exist, will have one structural barrier. Where possible, cleared areas inside and outside perimeter barriers should be maintained to a minimum width of 50 feet. An 18-inch top guard will be constructed on all fences. The top guard is an overhang of barbed wire along the top of a fence, facing outward and upward at an angle of 45°. Three or four strands of barbed wire, spaced 6 inches apart, are adequate. The length of the supporting arms and number of strands of wire may be increased where necessary. All supporting arms will be firmly affixed so that they cannot be removed by hand.

b. *Perimeter barriers.* Building walls, roofs, and dikes, when serving as perimeter barriers, should be of such construction and arranged so as to provide uniform protection equivalent to that provided by chain link fencing as specified herein. Where a building less than two stories forms a part of the perimeter, a top guard will be used along the outside coping to deny access to the roof.

c. *Masonry walls.* Masonry walls used as perimeter barriers should be a minimum of 7 feet high, surmounted by a top guard sloped outward, or should be a minimum of 8 feet high, surmounted by broken glass set on edge and cemented to the top surface.

d. *Fences.* The three types of fencing authorized for use in protecting areas are chain link, barbed wire, and concertina. Choice of the type of fencing is dependent primarily upon the degree of permanence of the installation, availability of materials, and the time available for construction. Generally, chain link fencing should be utilized for protection of permanent CB exclusion and/or CB limited areas; barbed wire for less permanent; and concertina for the least permanent. Barbed wire or concertina fencing at least 6 feet high may be used in limited or controlled areas where Category III or IV CB agents or munitions are stored.

(1) *Chain link.* Chain link fencing, including gates, will be of No. 9 gauge, or heavier, wire not less than 7 feet in height excluding top guard and with mesh openings not larger than 2 inches per side with a twisted and barbed selvage at top and

bottom. It will be taut and securely fastened to rigid metal or reinforced concrete posts set in concrete. It will reach within 2 inches of hard ground or paving and, on soft ground, reach sufficiently below the surface to compensate for shifting soil or sand. Construction will conform to the standards of an FE-6 fence.

(2) *Barbed wire.* Standard barbed wire is twisted double-strand, No. 12 gauge wire, with four-point barbs, spaced 4 inches apart. Barbed wire fencing, including gates, intended to prevent human trespassing, should not be less than 6 feet in height excluding top guard, and should be firmly affixed to posts not more than 6 feet apart. Distance between strands will not exceed 6 inches and wire strands will be interlaced vertically with barbed wire at intervals of 30 to 36 inches.

(3) *Concertina.* Standard concertina barbed wire is a commercially manufactured wire coil of high-strength steel barbed wire clipped together at intervals to form a cylinder. Opened, it is 55 feet long and 3 feet in diameter. When used as the perimeter barrier for a protected area, concertina should be laid between poles with one roll on top of another or in a "pyramid" arrangement, making a total height of approximately 6 feet. Ends will be staggered and fastened. Base wires will be picketed to the ground.

e. *Unguarded openings.* Windows, active doors, and other fixed or movable openings, with any one dimension of 6 inches or more, will be protected by securely fastened bars, grills, or chain link screens. Window barriers must be fastened from the inside and, when hinged, the hinges and locks must be on the inside.

f. *Utility openings.* Sewers, air and water intakes and exhausts, and other utility openings which pass through the perimeter barrier will be provided security equivalent to that of the perimeter barrier. Interior manhole covers affording entry to piping 10 inches or more in diameter will be secured to prevent unauthorized opening. Drainage ditches, culverts, and conduits which pass under perimeter barriers will be protected as described in TM 5-820-4.

g. *Gates and entrances.* The number of gates and perimeter entrances will be reduced to the minimum required for safe and efficient operation. Active perimeter entrances will be designated so that the guard force maintains full control. Semi-

active entrances, such as vehicular gates that are used irregularly, will be locked. Security plans will provide measures for the rapid entry of emergency vehicles and personnel, and the rapid clearance of nonessential personnel from the area in times of emergency.

**10. Protective lighting.** *a.* Lighting will be installed on all CB exclusion areas, and patterns will conform to those prescribed in TB PMG 34. Intensities will be in accordance with FM 19-30. Lighting at entrance control points will be of sufficient intensity to enable the guard to compare and identify the bearer of the pass or badge. The lighting system will be on continuously during hours of darkness and at other times of reduced visibility.

*b.* An alternate emergency source of power will be provided for all lighting systems installed around CB exclusion areas.

**11. Intrusion detection systems.** Intrusion detection alarm systems may be used at exclusion areas to detect approach, intrusion, or presence of an intruder. Intrusion detection systems will be technically reviewed in accordance with the provisions of AR 190-13.

**12. Guard communications.** *a.* Communications systems will vary with the nature of the facility. As a minimum, guard forces will have a primary and alternate system of both internal and external communications. The internal communications system will provide prompt communications between guard posts, patrols, and guard headquar-

ters. The external communications system will provide reliable communications between guard headquarters, civil police, fire departments, and medical support facilities for summoning aid from outside the facility when it is required.

*b.* Communications systems will not be overtaxed by use for other than guard communications.

*c.* All alarm and communications circuits will be tested at least once during each guard tour; periodic inspections will be made by technical maintenance personnel to repair or replace worn or failing parts and to detect evidence or possible indications of tampering with any components in the system.

**13. Supporting security facilities.** A sentry house normally is required at all points utilized for entry or exit which are attended by guards. The size of this building will depend upon the functions to be performed therein, such as badge or pass control, and the volume of pedestrian or vehicular traffic. A separate guard house may be required to provide facilities for the guard command post, communications equipment and, if necessary, an alert force. When intrusion detection alarms are used, alarm monitoring and recording equipment will be installed in the sentry or guard house. Facilities which house communications, alarm, monitoring and recording equipment, or the guard force will be located and constructed so as to provide protection against fire, unauthorized access, or other hazards which could prevent timely alert in time of emergencies.

TABLE I

## Minimum Security Criteria and Forces for Storage Areas

I. AREA DESIGNATION	CATEGORY I	CATEGORY II	CATEGORY III	CATEGORY IV
	A. Exclusion	Note 1		
B. Limited		Note 1 or 2	Note 10	Note 10
C. Controlled				
<b>II. SECURITY FORCES</b>				
A. Posts (Entry Control)	Yes	Yes	Yes	Yes
B. Patrols	Note 3	Note 3	Note 3	Note 3
C. Emergency Forces				
1. Security Alert	Note 4	Note 4	Note 4	Note 4
2. Backup Alert	Note 5	Note 5	Note 5	Note 5
3. Reserve Force (RF)	Note 6	Note 6	Note 6	Note 6
4. Augmentation Reserve Force (ARF)	Note 7, 8, or 9	Note 7, 8, or 9	Note 7, 8, or 9	Note 7, 8, or 9
Note 1.	Locked igloo storage in designated and fenced area.			
Note 2.	Locked igloo type storage in designated and fenced area.			
Note 3.	Exclusion areas every ½ hour; limited areas every 4 hours; controlled areas every 8 hours.			
Note 4.	SAT. Two men in less than 10 minutes.			
Note 5.	BAT. Six men in less than 20 minutes (2 of 6 from SAT).			
Note 6.	RF. Ten men in one hour (6 of 10 from SAT and BAT).			
Note 7.	ARF. One reinforced company size unit (response time is dependent on actual or anticipated threat).			
Note 8.	Oversea commanders shall constitute this force.			
Note 9.	CONUS commanders will prepare plans to designate forces to be provided during times of emergency.			
Note 10.	Stored in a designated and fenced area.			

The proponent agency of this regulation is the Office of The Provost Marshal General. Users are invited to send comments and suggested improvements to The Provost Marshal General, ATTN: PMGS-S, Department of the Army, Washington, D.C. 20310.

By Order of the Secretary of the Army:

W. C. WESTMORELAND,  
General, United States Army,  
Chief of Staff.

Official:

KENNETH G. WICKHAM,  
Major General, United States Army,  
The Adjutant General.

Distribution:

To be distributed in accordance with DA Form 12-9 requirements for AR, Military Police:  
*Active Army:* A (qty rqr block #248).  
*NG:* D (qty rqr block #251).  
*USAR:* D (qty rqr block #251).

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, DC, 19 August 1969

ARMY REGULATION }  
No. 385-14

## SAFETY

ACCIDENT/INCIDENT REPORTING—MILITARY SHIPMENTS OF EXPLOSIVES  
AND DANGEROUS ARTICLES BY COMMERCIAL CARRIERS

Effective 1 October 1969

*This revision updates procedures for reporting accidents/incidents involving nonnuclear explosives and dangerous articles transported by commercial carriers; broadens the scope to include accidents/incidents which may occur in Hawaii or Alaska; and provides changes in pertinent telephone listings. Local limited supplementation of this regulation is permitted, but not required. If supplements are issued, Army Staff agencies and major Army commands will furnish one copy of each to the Deputy Chief of Staff for Logistics; other commands will furnish one copy of each to the next higher headquarters.*

## SECTION I. GENERAL

Purpose and scope.....	1
Explanation of term accident/incident.....	2
Policy.....	3
Responsibilities.....	4
II. PROCEDURES	
Initial report by telephone.....	5
Accident/Incident Involving Commercial Shipment of Explosives and Dangerous Materials, RCS CSGLD-1442.....	6
Assistance to carriers.....	7
Public information.....	8

## Section I. GENERAL

**1. Purpose and scope.** This regulation prescribes policies, responsibilities, and procedures for prompt reporting and investigation of accidents/incidents involving military explosives, conventional ammunition, and other dangerous regulated articles, transported by surface commercial carriers outside military installations in the United States. Accidents/incidents involving transportation of nuclear weapons major assemblies and components are covered in AR 50-2 and AR 385-40; chemical and biological materials are covered in AR 50-21, AR 55-8, and AR 55-56; and radioactive and fissile materials other than weapons are covered in AR 55-55.

**2. Explanation of term accident/incident.** For the purpose of this regulation, an accident/incident is an unplanned event involving military explosives, conventional ammunition, or other dangerous regulated articles being transported by a commercial carrier (does not include nuclear

weapons, their nuclear components, or their major assemblies, or chemical, biological, or radiological articles). Such events may result in—

- Fire, explosion, and/or other property damage or conditions creating a public hazard;
- National publicity because of the nature or magnitude of the event; or
- Adverse effect upon public confidence in the Army.

**3. Policy.** *a.* To prevent unfounded public alarm through misconception that nuclear or other non-conventional weapons are involved, accidents involving high explosives or other hazardous materials being transported by commercial carriers will be reported promptly and accurately. This policy will enable the Army to render effective aid, when necessary, to minimize personal injury and property damage.

*b.* Primary responsibility at the scene of an accident/incident (defined in para 2) rests with the

\*This regulation supersedes AR 385-14, 19 September 1968.

commercial carrier having physical custody of the dangerous articles at the time of the accident/incident.

**4. Responsibilities.** *a.* The Deputy Chief of Staff for Logistics is responsible for general staff supervision of—

(1) Department of the Army transportation service required for movement of freight/cargo.

(2) The Explosive Ordnance Disposal (EOD) program.

*b.* The commander of the U.S. Continental Army Command (USCONARC) and the commanders of major commands in Alaska and Hawaii in whose geographical area of responsibility the accident occurs are responsible for providing assistance to the carrier. They are also responsible for establishing procedures to have the occurrence investigated to obtain accurate data for a final letter report (para 6b).

*c.* The commander of the installation or activity, regardless of location, who is first informed by the carrier or by any other means, to include news media reports of such an accident as defined in

## Section II. PROCEDURES

**5. Initial report by telephone.** *The commander first learning of an accident/incident will immediately make an initial report (para 6a) telephonically to the addressees listed in table 1. Such action will insure prompt EOD or other assistance when required.*

**6. Accident/Incident Involving Commercial Shipment of Explosives and Dangerous Materials, RCS CSGLD-1442.**

*a. Section A. Initial Report of Accident.* The initial telephonic report will be confirmed by priority electrical means. The report will include the following or as much information as is available at the time of submission. Notification will not be delayed awaiting receipt of detailed information:

- (1) Name, organization, location, and telephone number of person reporting accident.
- (2) Date and time of the accident.
- (3) Exact location of the accident.
- (4) Quantity and type of material involved.

paragraph 2, is responsible for notifying addressees listed in table 1.

*d.* The transportation officer initiating shipments of explosives or other dangerous articles transported by commercial carrier is responsible for furnishing the carrier with written instructions on Standard Form 1103 (U.S. Government Bill of Lading) and DD Form 836 (Special Instructions for Motor Vehicle Drivers). This is to notify the consignor and the consignee by the fastest available means when the shipment is involved in an accident/incident in which the carrier requires or requests assistance. Inquiries regarding the carrier or the transport equipment involved will be obtained from the carrier or other investigators of the accident scene.

*e.* The EOD team dispatched to the accident/incident scene is responsible for rendering safe the explosives or other dangerous cargo being transported and involved in the accident. Members of the EOD team involved in the post-accident operation are not to be distracted from their hazardous tasks to provide information or other assistance not related to their mission.

(5) Description of property damage and personnel casualties.

(6) Name of carrier involved and whether the carrier required or requested military assistance.

(7) Description of the accident to include—

(a) Injuries or fatalities.

(b) Type of accident (vehicle upset, vehicle collision, train derailment).

(c) Condition of the cargo; was there a detonation or a fire; is it in a safe condition to be moved and/or continued to destination. Describe any damage to the cargo.

(d) Estimated property damage.

(8) Has technical assistance been provided. By which agency.

(9) Origin, destination, and priority of shipment, if known.

(10) Have the consignor and consignee been advised.

(11) Other pertinent information.

When the initial report does not contain all of the above information, the commander of the activity furnishing technical assistance to the carrier will complete the information listed above and forward by electrical means to addressees in table 1 *after emergency action at the accident scene has been completed.*

*b. Section B. Technical Report of Accident.*

(1) USCONARC, USARAL, and USARHAW commanders will establish procedures to have such accidents which occur within their geographic areas of responsibility investigated to obtain accurate data for a final letter report. Information in such reports will be used to determine what safety improvements, if any, are needed in future shipment of explosives and dangerous regulated articles. The report will include—

(a) The information prescribed in *a* above.

(b) All known events or conditions which led up to the accident, everything that may have contributed to it, and failure of persons or equipment, if known.

(c) Detailed description of the kinds and quantities of explosives and lot numbers; time intervals between explosions, if measurable.

(d) Description of barricades, if any, and effect upon them.

(e) Photographs, when available.

(f) A map, where feasible, showing radii of complete destruction; structural damage beyond economical repair; repairable damage; general glass breakage; and distance to which most missiles were projected, with kinds and weights of missiles and distances between locations if explosions occurred at more than one place.

(2) Commanders of class II installations will assist USCONARC, USARAL, and USARHAW commanders in the preparation of such reports when the class II installation is the nearest to the scene of the accident.

(3) Three copies of the report will be submitted within 30 days following the occurrence by commanders through command channels to the Deputy Chief of Staff for Logistics, ATTN: TRD-TEB, Department of the Army, Washington, DC 20310.

*Note.* Accidents occurring on a military facility will be handled in accordance with AR 385-40. Nonhazardous transportation delays will be handled in accordance with paragraph 216019, AR 55-355.

**7. Assistance to carriers.** *a.* Technical assistance and aid considered necessary in connection with moving, salvage, demolition, neutralization, or other disposition of Army-owned shipments being transported by commercial carriers will be in accordance with AR 55-355 and AR 75-15.

*b.* The responsibility for determining whether a dangerous or explosive article involved is safe for movement rests with the EOD officer or in his absence with the surveillance specialist at the scene, who will report the condition of the article and request disposition instructions from U.S. Army Ammunition Procurement and Supply Agency (USAAPSA) and U.S. Army Missile Command (USAMICOM). Disposition instructions will be furnished by the cognizant command directly to the EOD or surveillance technician.

*c.* The responsible carrier, the consignor and consignee, and the commander in whose area the accident/incident occurred will be apprised of the disposition of the cargo involved.

**8. Public information:** *a.* USCONARC, USARAL, and USARHAW commanders in whose area of responsibility an accident occurs will take action immediately to determine details surrounding the occurrence and promptly make appropriate statements to the press and other news media giving fullest possible unclassified accurate data. The statements will be drafted so as to allay fears of the general public by reporting the steps being taken to safeguard life and property. Also advise the public, as necessary, of any possible remaining dangers, such as contamination and the possibility of subsequent explosions.

*b.* USCONARC, USARAL, and USARHAW commanders will expeditiously provide a copy of all press releases by telephone or electrical transmission to Chief, News Branch, OCINFO, DA; AUTOVON 22, ext 72351; Commercial, area code 202, OX 72351.



Table 1. Emergency Addressees and Telephone Numbers

Addressee	AUTOVON		Commercial	
	Duty hours	Nonduty hours	Duty hours	Nonduty hours
Commanding General U.S. Army Ammunition Procurement and Supply Agency (USAAPSA) Joliet, IL 60431 <sup>1</sup>	931 + ext 2142, 3283, or 3284	931 + ext 2900	815-424 + ext 2142, 3283, or 3284	815-424 + ext 2900
Commanding General U.S. Army Missile Command (USAMICOM), ATTN: AMSMI Redstone Arsenal, AL 35809 <sup>2</sup>	26 + ext 746-2032 or 746-8961	26 + ext 746-3331	Area code 205 + 876-8961	Area code 205 + 876-3331
Commanding General U.S. Army Materiel Command (USAMC) Washington, DC 20315	22 + ext 47717	22 + ext 74206	Area code 202 + 694-7717	Area code 202 + 697-4206
Commanding General U.S. Continental Army Command Fort Monroe, VA 23351 <sup>3</sup>	555-3900 + ext 4232 or 4233	555-3900 + ext 2256 or 3122	Area code 703 + 727-4232 or 4233	Area code 703 + 727-2256 or 3122
Deputy Chief of Staff for logistics ATTN: TRD-TEB Department of the Army Washington, DC 20310 <sup>4</sup>	22 + ext 44361	22 + ext 49039 or 72116	Area code 202 + 694-4361	Area code 202 + 697-2116
Army Operations Center Department of the Army Washington, DC 20310	85-3550 + ext 240 215 216 217	Same	Area code 202 + 695-0441 ext 240 215 216 217	Same
Chief of Information Department of the Army Washington, DC 20310	22 + ext 72351	22 + ext 50163	Area code 202 + 697-2351	Area code 202 + 695-2059

For explanation of footnotes see end of table.

Table 1. Emergency Addressees and Telephone Numbers—Continued

Addressee	AUTOVON		Commercial	
	Duty hours	Nonduty hours	Duty hours	Nonduty hours
Commander Military Traffic Manage- ment and Terminal Service (MTMTS), ATTN: TES Washington, DC 20315	22 + ext 21698	22 + ext 22059	Area code 202 + 692-1699	Area code 202 + 692-2059

<sup>1</sup> Notify only if occurrence involves shipment of conventional ammunition, explosives and related components, or rockets and rocket motors.<sup>2</sup> Notify only if occurrence involves guided missiles, large rockets, liquid propellants, and related components.<sup>3</sup> CG, USCONARC, and the major commands in Alaska and Hawaii in whose area of responsibility the accident/incident occurred will also be notified. Check local directories for addresses and telephone numbers.<sup>4</sup> Office, DCSLOG, will take action to insure that Navy and Air Force personnel are apprised of the accident/incident when their branch of service is the consignee and/or consignor.

The proponent agency of this regulation is the Office of the Deputy Chief of Staff for Logistics. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications) to the Deputy Chief of Staff for Logistics, ATTN: TRD-TEB, Department of the Army, Washington, DC 20310.

By Order of the Secretary of the Army:

Official:  
KENNETH G. WICKHAM,  
Major General, United States Army,  
The Adjutant General.

W. C. WESTMORELAND,  
General, United States Army,  
Chief of Staff.

## Distribution:

To be distributed in accordance with DA Form 12-9 requirements for AR, Safety:  
Active Army: C (CONUS, USARAL, USARHAW) (quan rqr block No. 376)  
ARNG: D (CONUS, USARAL, USARHAW) (quan rqr block No. 377).  
USAR: D (CONUS, URARAL, USARHAW) (quan rqr block No. 377).

ARMY REGULATION  
No. 740-19

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 27 September 1968

STORAGE AND SUPPLY ACTIVITIES  
STORAGE OF STRATEGIC AND CRITICAL MATERIALS

SECTION I. INVENTORY RECORD CARDS	Paragraph
General.....	1
Source of data.....	2
Instructions for preparation of GSA Form 46.....	3
Voucher register.....	4
Voucher files.....	5
II. STRATEGIC AND CRITICAL MATERIAL STORED IN ARMY INSTALLATIONS (Reports Control Symbol AMC-111)	
Scope.....	6
Preparing agencies.....	7
Frequency, routing, and due date.....	8
Form.....	9
Instructions for preparation of DA Form 621.....	10
Classification.....	11

Section I. INVENTORY RECORD CARDS

**1. General.** This regulation governs the preparation and maintenance of Inventory Record Cards (GSA Form 46, Jan. 57), and the preparation of the Report of Strategic and Critical Material Stored in Army Installations (DA Form 621) Reports Control Symbol AMC-111 (formerly CSGLD-321(R1)). These record cards and report provide uniform data on commodities stored by the Department of the Army for General Services Administration, Property Management and Disposal Service, under the provisions of Public Law 520, 79th Congress. The data are required for management, control, and planning purposes at depot; Headquarters, U.S. Army Materiel Command; and General Services Administration levels.

**2. Source of data.** Inventory Record Cards (GSA Form 46, revised) are the basic source of data for submission of the report of Strategic and Critical Material Stored in Army Installations. These record cards will be maintained at each installation storing strategic and critical materials for the account of General Services Administration (GSA), Property Management and Disposal Service.

**3. Instructions for preparation of GSA Form 46.** *a.* The material record cards and supporting documents are to be retained by the storing installations. They are not to be destroyed until 2

years after all stored material of like kind or grade has been shipped plus 90 days after notice has been furnished to GSA that the records are to be destroyed.

*b.* Instructions on reverse side of GSA Form 46 will be disregarded and the following instructions used in lieu thereof:

(1) *Program.* Enter the program designations such as SCM (Strategic and Critical Material); D (Defense Material); CC (Commodity Credit Corporation); or DM (Domestic Minerals).

(2) *Commodity.* Enter name of the commodity.

(3) *Grade.* Enter the grade of the commodity, if applicable.

(4) *Type.* Enter the type of the commodity, if applicable.

(5) *Unit of measure.* Enter the unit of measure in pounds as shown on the Receiving Report (GSA Form 131) except for those materials reported in ounces, carats, or pieces.

(6) *Card number.* Establish a separate sequence of consecutive numbers for each separate commodity, for each separate grade within a commodity, and for each separate type within a grade.

(7) *Pile or tank number.* Enter the pile number for ores stored in common piles and the tank number for oils and ores stored in tanks.

\*This regulation supersedes AR 780-61, 3 November 1966.

(8) *Type of container.* Enter the common unit bags, bales, pigs, ingots, boxes, etc., where applicable. In the event any material is received in more than one type container, such as bags and drums, a proper notation can be made in the NO. OF UNITS Column in the "Received" (item 11) or "Delivered" (item 12) e.g., 120-B (120 Bags), 200-D (200 Drums).

(9) *Country of origin.* Enter the country of origin of foreign source materials in accordance with GSA Listing of Stockpile Materials by grade and type.

(10) *Separate card.* A separate card is required when any data shown in items 1 through 5, 7, and 9 are different.

c. The following instructions apply to the data required in the columnar items of this card:

(1) *Item 10—date.* Enter the date that the material is received or shipped.

(2) *Item 11—received.* Enter the applicable receiving report number from the Receiving Re-

port (GSA Form 131) the number of units, and the net weight received.

(3) *Item 12—delivered (shipped).* Enter the outbound storage report number, the number of units and the weight, shown on the Outbound Storage Report (GSA Form 132).

(4) *Item 13—balance.* The balance is a cumulative total of the material received less material delivered (shipped). The totals, units, and net weight, under balance are equal to the material on hand and in storage.

**4. Voucher register.** A voucher register will be maintained at each installation storing strategic and critical material. Voucher numbers will be assigned in numerical sequence.

**5. Voucher files.** A single voucher file will be maintained for all vouchers covering strategic and critical materials transactions. Vouchers will be filed in voucher number sequence.

## Section II. STRATEGIC AND CRITICAL MATERIAL STORED IN ARMY INSTALLATIONS

### (Reports Control Symbol AMC-111)

**6. Scope.** This report will include all strategic and critical materials stored at Army installations for the account of General Services Administration, Property Management and Disposal Service. The report will reflect the storage space allocated and occupied by strategic and critical material at each installation and the quantity by commodity stored thereat. For the purpose of this report materials will be listed in accordance with nomenclature recorded on the Inventory Record Card (GSA Form 46).

**7. Preparing agencies.** The report will be prepared by each installation at which space has been allocated to General Services Administration, Property Management and Disposal Service, for storage of the materials or in which these materials are stored.

**8. Frequency, routing, and due date.** a. The report will be prepared quarterly as of 30 September, 31 December, 31 March, and 30 June.

b. Each preparing depot installation will dispatch the report (original and two legible copies) within 5 working days after the close of the

quarter, to CG, U.S. Army Materiel Command, ATTN: AMCDT-BO, Washington, D.C. 20315.

c. Installations other than depots will forward the original and two legible copies of the reports through appropriate command channels to CG, U.S. Army Materiel Command, ATTN: AMCDT-BO, Washington, D.C. 20315, no later than 5 working days after the close of the quarter.

**9. Form.** This report will be prepared on DA Form 621 (Strategic and Critical Material Stored in Army Installations). This form will be requisitioned through normal publications supply channels. Pending reprinting of DA Form 621, reporting installations will change Reports Control Symbol, in upper right corner, from CSGLD-321 (R1) to AMC-111. This will be done when the report is prepared.

**10. Instructions for preparation of DA Form 621.** a. *To.* Enter the name and mailing address of the U.S. Army Materiel Command.

b. *From.* Enter the name and location of the installation preparing the report.

c. *Outbound storage report number.* Enter the last outbound storage report number issued by the installation prior to the end of the reporting period.

d. *Receiving report number.* Enter the last receiving report number issued by the installation prior to the end of the reporting period.

e. *Prepared by.* Enter the name and position of the individual who prepared the report.

f. *Approved by.* Enter below the signature the type name, grade, and official position of the individual authenticating the report.

g. *Column a—Number.* Number the line entries on the report consecutively for each commodity stored, 1, 2, 3, etc.

h. *Column b—Commodity identification item.* Enter alphabetically the name of each commodity stored. For each commodity show data for each type of space in which material is stored.

i. *Column c—Inventory classification.* Enter the inventory classification symbol shown on the Inventory Record Card (GSA Form 46). This information is obtained from receiving reports or from GSA. (SCM—Strategic and critical material; D—Defense material; CCC—Commodity Credit Corporation; and DM—domestic minerals.)

j. *Column d—Type.* Enter the type of space allotted for storage of specific commodities: warehouse, shed, igloo, magazine, tank, vault, open improved, and open unimproved.

k. *Column e—Gross storage space allotted.* Enter the gross amount of storage space allocated to General Services Administration, Property Management and Disposal Service, for storage of the specific commodities listed in column b. Entries for covered storage space will be rounded to the nearest hundred of square feet (e.g., 10,350 will be en-

tered as 10,300; 10,351 as 10,400). Entries for open storage space will be rounded to the nearest thousand of square feet (e.g., 25,500 will be entered as 25,000; 25,501 as 26,000). If more than one inventory classification (col. c) is involved for a commodity listed, make entry in column e only for first inventory classification listed.

l. *Column f—Gross storage space occupied.* Enter the gross amount of storage space occupied by material indicated in column b. Entries will be rounded to the nearest hundred of square feet or to the nearest thousand of square feet (as indicated above for column e).

m. *Column g—Quantity in storage.* Enter the amount of material stored to the nearest whole short ton converting ounces to pounds and pounds to short tons when necessary. Should the total amount of material be less than 1,000 pounds, the amount will be entered in pounds, and so identified.

**11. Classification.** Report of Strategic and Critical Material stored in Army installations, RCS AMC-111, will be classified in accordance with paragraph 6, section III (General Services Administration), Strategic and Critical Material Storage Manual:

a. Individual installation reports covering two or more items will be classified CONFIDENTIAL when handled separately.

b. The complete Army Report or any portion thereof comprised of more than one individual depot report will be forwarded under SECRET cover.

c. All classified material relating to the National Stockpiling Program will be assigned Group 3 marking for automatic downgrading in accordance with paragraph 6, AR 380-6.

The proponent agency of this regulation is the U.S. Army Materiel Command. Users are invited to send comments and suggested improvements to Commanding General, U.S. Army Materiel Command, ATTN: AMCDT-BO, Washington, D.C. 20315.

By Order of the Secretary of the Army:

W. C. WESTMORELAND,  
General, United States Army,  
Chief of Staff.

Official:

KENNETH G. WICKHAM,  
Major General, United States Army,  
The Adjutant General.

Distribution:

To be distributed in accordance with DA Form 12-9 requirements for AR, Storage and Shipment of Supplies and Equipment:

Active Army: C (CONUS) (Quan Rqr Block No. 676).

ARNG: D (Quan Rqr Block No. 677).

USAR: D (Quan Rqr Block No. 677).



DSA REGULATION  
NO. 4145.4

Headquarters  
Defense Supply Agency  
REGULATION

DSAR 4145.4  
AR 740-22

DSAH-OSS

Alexandria, Va.  
12 Nov 63

CARE OF SUPPLIES IN STORAGE, INSPECTION AND REPORTING

1. REFERENCE

Joint Storage and Materials Handling Manual DSAM 4145.1, TM 743-200, NAVSANDA Pub 284, AFM 67-3, NAVMC 1101 (Chapter 3, Sec VIII).

II. PURPOSE

This DSAR, prepared in accordance with the above reference, prescribes the basic policies and objectives for the uniform care of supplies in storage, including the inspection and reporting of condition and serviceability, of DSA-owned items of supply.

III. SCOPE

This DSAR is applicable to HQ DSA, Defense Supply Centers (DSCs), Defense Depots, and Military Service Managed Depots having staff or operational responsibility for care of DSA-owned supplies in storage in accordance with the following management relationships:

A. The receipt, storage and shipment of DSA items at Military Service Depots will be performed in accordance with the provisions of Common or Cross-Servicing Agreements made between DSA and the respective owning Military Service.

B. At Department of the Navy installations, DSA will exercise only such review as necessary to assure proper care, stock levels, custody of stocks and on-time service to customers who reimburse DSA.

C. On an interim basis, the Department of the Army will receive, store, and ship DSA stocks at certain selected depots and provide receipt, storage and shipment services to DSA in accordance with appropriate agreements. DSA will have the right of concurrence in the selection by the Department of the Army of the Director of Storage and Transportation at such installations. DSA will maintain technical supervision over operations affecting the receipt, storage and shipment of DSA material. This technical supervision may include the prescribing of methods and practices which may significantly affect the efficiency and cost of those operations which DSA finances, and will include

the prescribing of such performance reports as DSA requires to evaluate costs and customer service effectiveness.

#### IV. GENERAL

The following policies apply:

A. There will be a continuous program for the care of DSA supplies in storage including a quality evaluation and control system consisting of, but not limited to:

1. Scheduled, cyclic and special inspections (examination and testing).
2. Application of care and preservation treatment.
3. Timely reporting of the condition of supplies.
4. Action to arrest all forms of deterioration which adversely affect serviceability.
5. Timely disposition of items determined to be in other than a required or issuable condition.
6. Recording of quality history data for items.

B. DSA-owned supplies in storage will be afforded adequate protection from the elements and adverse environmental conditions through the use of proper storage facilities and application of preservation, packaging, and packing or a combination of these measures.

C. Application of protective measures may be required even though an item is to be stored in a favorable environment. Appropriate consideration will be given to the preparation and care of items stored under specific types of storage, such as controlled humidity, refrigerated, heated, ventilated, shed and open area. Shelf-life, rate of deterioration, anticipated length of storage, destination, and end use of an item will be considered in determining the need and degree of activity in each phase of the care of supplies program.

D. The objectives of the DSA care of supplies program are to:

1. Assure serviceability of supplies.
2. Assure adequate preservation, packaging, and packing of supplies.
3. Maintain complete and accurate knowledge of condition of supplies

4. Achieve longer shelf-life and reduce rates of deterioration.

5. Permit adjustments in storage inspection (examination and testing) of supplies.

6. Attain maximum stability and reliability of supplies in storage.

7. Develop reliable feedback data for improvement of specifications and product design.

8. Achieve the maximum economy effectiveness.

9. Preclude care and inspection of supplies determined to be excess, surplus, obsolete, or otherwise earmarked for disposal.

#### V. RESPONSIBILITIES

A. HQ DSA. The Chief, Storage and Distribution Division, Executive Directorate, Supply Operations, will maintain this DSAR in a current status and review it annually.

#### B. Field Activities

1. Defense Supply Centers. Commanders of DSCs will:

a. Develop and publish appropriate guidance consistent with the provisions of DSAM 4140.2, Inventory Accounting and Transaction Processing Manual, for an economic and effective care of supplies program to include:

(1) Item serviceability standards.

(2) Defects classifications.

(3) Inspection procedures including minimum frequency of inspection, sampling plans conforming to established standards, and identification of item quality characteristics.

(4) Provisions for timely notification to depots for disposition of excess, surplus, obsolete, and unserviceable supplies.

(5) Required degree of item preservation, packaging, and packing.

b. Provide HQ DSA, ATTN: DSAH-OSS, with 2 copies of implementing instructions within 60 days of the date of this DSAR.

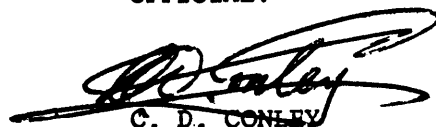
2. Defense Depots and Military Service Managed Depots. Commanders of Defense Depots and Military Service Managed Depots are responsible for:

- a. Assuring adequate program accomplishment through appropriate administrative and supervisory controls and procedures.
- b. Accomplishing inspection and quality analysis of supplies within established guidelines.
- c. Recommending, on the basis of quality analysis, changes in serviceability standards, inspection frequency, or other adaptations to local conditions.
- d. Effecting maximum economy in utilization of manpower, equipment and expenditure of funds in accomplishing this program.

BY ORDER OF THE DIRECTOR, DEFENSE SUPPLY AGENCY:

E. M. TEETER  
Colonel, USA  
Executive

OFFICIAL:



C. D. CONLEY  
Colonel, USA  
Staff Director, Administration

DISTRIBUTION:

Defense Supply Agency - C, S  
Air Force: AFSSS-D - 25  
Marine Corps: Code ABP - 20

Army:

Active Army: To be distributed in accordance with DA Form 12-9 requirements for DA Regulations - Logistics Responsibilities, Functions, and Procedures, Medical - B.

NG: State AG (3)

USAR: None

Navy: Activities concerned with storage of DSA-owned items of supply.

ARMY REGULATION  
No. 740-32  
OPNAV INSTRUCTION  
No. 8070.1  
AIR FORCE REGULATION  
No. 136-4  
MARINE CORPS ORDER  
No. 4030.25

DEPARTMENTS OF THE ARMY,  
THE NAVY, AND THE AIR FORCE  
WASHINGTON, D.C., 7 April 1966

STORAGE AND SHIPMENT OF SUPPLIES AND EQUIPMENT  
RESPONSIBILITIES FOR TECHNICAL ESCORTS OF CHEMICAL,  
BIOLOGICAL, AND ETIOLOGICAL AGENTS

	Paragraph
Purpose.....	1
Policy.....	2
Definitions.....	3
Criteria for shipments requiring technical escorts.....	4
Responsibilities for technical escort service.....	5
Coordinating instructions.....	6
Technical responsibilities.....	7
Training responsibilities.....	8
Administrative responsibilities.....	9

**1. Purpose.** This regulation assigns responsibilities to the Military Services for providing technical escorts for shipments of chemical, biological, and etiological agents from the point of storage or manufacture to a specified point of entry within a theater of operations as designated by the theater commander. It also prescribes the procedures and requirements to insure the safety and security of such shipments.

**2. Policy.** The Military Services will comply with all laws and regulations of the several Federal regulating bodies governing the movement of chemical, biological, and etiological agents in military or commercial service, including military equipment using public facilities.

**3. Definitions.** For the purpose of this regulation, the following definitions apply:

*a. Technical escort.* One or more qualified civilian or military individuals who are accompanying a shipment of chemical, biological or etiological agents or munitions and who are qualified and equipped to assure a high degree of safety and security for the shipment.

*b. Chemical agent.* A solid, liquid, or gas which through its chemical properties produces lethal or damaging effects on man, animals, plants

or material, or produces a screening or signaling smoke.

*c. Biological agent.* A micro-organism which causes disease in man, plants or animals, or causes the deterioration of materiel.

*d. Etiological agent.* A causative agent of any of the diseases listed in Title 42, paragraph 72.25, "Public Health" Code of Federal Regulation (CFR), or of any diseases which may later be prescribed by The Surgeon General, U.S. Public Health Service. In addition, the term "etiological agent" includes any biological agent designated by the Secretary of Agriculture under the terms of the agreement between the Secretaries of Agriculture and Defense concerning the shipment of potential biological warfare agents.

*e. Decontamination.* The process of making any person, object or area safe by either absorbing, destroying, neutralizing, making harmless or removing chemical or biological agents, or by removing radioactive material clinging to or around it.

*f. Physical possession.* As used herein includes, without limitations, possession by reason of physical custody.

*g. Accident.* The unintentional release of chemical, biological, and etiological agents.

*h. Incident.* Any event which constitutes a hazardous situation which if not corrected could result in an accident.

*i. Technical escort procedures.* The common techniques and application of special tools, equipment, and publications necessary for maintaining safety and security during shipment of all chemical, biological, and etiological agents.

**4. Criteria for shipments requiring technical escorts.** Shipments of the following must be accompanied by qualified technical escort personnel:

*a.* Class A poisons (excluding nerve agents, biological agents, and potential chemical agents under development) except for separate shipments of quantities not exceeding in volume the space occupied by 100 pounds of water (1.6 cubic feet or 11.9 gallons). Approved Interstate Commerce Commission (ICC) containers or military containers which equal or exceed the specifications of ICC containers must be used.

*b.* Nerve agents (e.g., "G" or "V") and potential chemical agents under development except for separate shipment of one gas identification set or of one laboratory sample not exceeding 1 liter in volume. Approved ICC containers or military containers which equal or exceed the specifications of ICC containers must be used.

*c.* All etiological agents (except diagnostic specimens and etiological agents with 500 milliliters or less in the primary containers provided the total quantity in any one vehicle, aircraft, or other conveyance does not exceed 3 gallons). The shipping agency will provide an effective decontaminant for those agents that are resistant to calcium hypochlorite, 5 percent phenol, and 5 percent sodium hydroxide.

*d.* All radioactive materials which require an ICC waiver or special permit for shipment.

The above criteria do not preclude the use of technical escorts when an evaluation by the commanding officer of the shipping installation or transportation agency of inherent factors of public relations, security, economics and degree of hazard involved indicates such escort would be in the best interest of the Government.

**5. Responsibilities for technical escort service.** *a. General.* Except as otherwise specified below, each Military Service will provide technical escort service to meet its own requirements. In addition to meeting its own requirements and com-

mensurate with its capabilities, the Army will provide technical escort service for Navy, Marine Corps, and Air Force in accordance with the following:

(1) *For items produced by the Army.* From point of manufacture to initial CONUS storage location or to a specified point of entry as designated by the theater commander.

(2) *For items stored in Army installations in CONUS.* From Army storage locations in CONUS to the CONUS storage or transfer location of the other respective services or to a specified point of entry as designated by the theater commander.

(3) *Limitation.* Except for shipments that will continue in Army custody at shipping destination, performance by the Army of the escort service indicated in (1) and (2) above will terminate upon acquisition by the other services of the requisite technical escort capability. Terminal date for acquiring this capability is 1 July 1967.

*b. Oversea and theater commands.* Oversea and theater commanders will prescribe escort requirements and procedures to be used within their respective commands. If these procedures differ from the Army procedures, coordination will be completed prior to shipment. This applies to commands being transited as well as to the receiving command.

**6. Coordinating instructions.** *a.* The responsibilities delineated herein are primary responsibilities for technical escort of chemical, biological, and etiological agents within the Department of Defense and includes assistance by one service to another.

*b.* The control of the disposition of chemical, biological, and etiological agents for which a service is accountable will remain with that service regardless of the location of the agents or articles.

*c.* It is the responsibility of the service which becomes aware of an accident/incident to a shipment under technical escort to take whatever measures possible within its capability to neutralize, prevent, or limit possible damage or injury pending assumption of control by the responsible service.

*d.* In CONUS, the appropriate Army area commands will be notified by the consignor of all shipments under technical escort to or through

their geographical areas of responsibility for the purpose of providing assistance in the event of an accident/incident. Commanders of unified commands overseas will be similarly advised when shipments under technical escort to or from CONUS are made to or through their areas of responsibility.

*e.* Each service will fund requirements for technical escort which it will provide in accordance with responsibilities established in paragraph 5. Budgeting and funding by the Army for performance of technical escort in support of the other services pursuant to paragraph 5a will be based on programing data to be provided by the services requiring support. Programing data will be timely and will be furnished in consonance with established interchange procedures. However, in the event of an accident/incident, the service performing the escort services will reimburse, upon request, the costs incurred by other service(s) over and above normal operating expenses in rendering assistance essential to remedying or controlling the incident/accident situation.

*f.* Requests for Army technical escort services should be received by Edgewood Arsenal, Maryland, ATTN: Commanding Officer, U.S. Army Technical Escort Unit, 7 days before the desired shipping date for CONUS shipments, and 60 days for shipments outside CONUS. Emergency requests should be by teletype or by telephone followed by confirmation in writing. All requests will contain as a minimum the following information:

- (1) Items and quantity to be shipped to include—
  - (a) Agent, if applicable.
  - (b) Shipping dimensions (length, width and height).
  - (c) Weight (net and gross).
  - (d) Type of container.
  - (e) Security classification of shipment.
- (2) Pickup point and destination of shipment.

[DCSLOG]

- (3) Name of individual(s), title(s), and telephone numbers to contact at pickup point and destination.
- (4) Date shipment will be ready by consignor.
- (5) Date shipment is desired by consignee.
- (6) Special requirements placed on shipment by consignee.
- (7) Fund citation and authority to obligate funds in an amount sufficient for travel and other expenses incident to the escort service requested.

*g.* Technical escorts will be knowledgeable of the hazards, safety precautions, and security aspects of the shipment and will have the required security clearances and inoculations prior to mission initiation.

*h.* Technical escorts from one service will brief technical escorts from the other service(s) on the nature of the cargo prior to being relieved of responsibility for the safety and security of the materiel escorted. The briefing will include the specific hazards, safety precautions, and security aspects of the cargo.

**7. Technical responsibilities.** The primary responsibility for development and standardization of technical escort procedures is assigned to the Army. These procedures will be coordinated with the other services. This assignment does not preclude the development of technical escort procedures by the other services when considered either necessary or desirable; however, all such procedures will be integrated into the overall program.

**8. Training responsibilities.** The responsibility for training of personnel for technical escort operations is assigned to each respective service.

**9. Administrative responsibilities.** The Military Services are responsible for establishing and maintaining control of records of operations, organization and personnel, and funding requirements relating to their respective technical escort operations.

AR 740-32/OPNAVINST 8070.1/AFR 136-4/MCO 4030.25

By Order of the Secretaries of the Army, the Navy, and the Air Force:

Official:

J. C. LAMBERT,  
Major General, United States Army,  
The Adjutant General.

HAROLD K. JOHNSON,  
General, United States Army,  
Chief of Staff.

ROY S. BENSON,  
Rear Admiral, United States Navy,  
Assistant Vice Chief of Naval Operations/  
Director of Naval Administration.

Official:

R. J. PUGH,  
Colonel, USAF,  
Director of Administrative Services.

J. P. McCONNELL,  
General, U.S. Air Force,  
Chief of Staff.

H. W. BUSE, JR.,  
Lt. General, U.S. Marine Corps,  
Deputy Chief of Staff (Plans and  
Programs).

Distribution:

*Army:*

To be distributed in accordance with DA Form 12-9 requirements for Logistics Responsibilities, Functions and Procedures, General:

Active Army: C. NG: None. USAR: None.

*Navy:*

All Ships and Stations (less Marine Corps field addressees not having Navy personnel attached).

*Air Force:*

B.

*Marine Corps:*

MARCORPS LISTS:

2005/2088/2305/4145/4200/5070/7000-16, -42, -144/7150-03, -17, -21, -26, -30, -32, -34,  
-58, -68/7215/7225-15, -18, -28, -34, -37, -40, -42, -43, -49/7230-04, -05, -10/7256-  
04/8145 (2);  
1025/2010/2020/2030/2082/3700/4021/4180/5790/6025/6600/6900/6905 (4);  
7000-160 (6);  
7000-46 (10).