



DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND

WASHINGTON, D.C. 20362

*Lt Col Zetz*  
*Lt Redmond*  
*Z* *J.P.*

IN REPLY REFER TO  
06H11/LDW  
Ser 818  
8020

30 SEP 1983

From: Commander, Naval Sea Systems Command  
To: Commanding General, Marine Corps Base  
Camp Lejeune, North Carolina 28542

Subj: Approval of Ammunition/Explosives Disposal Areas

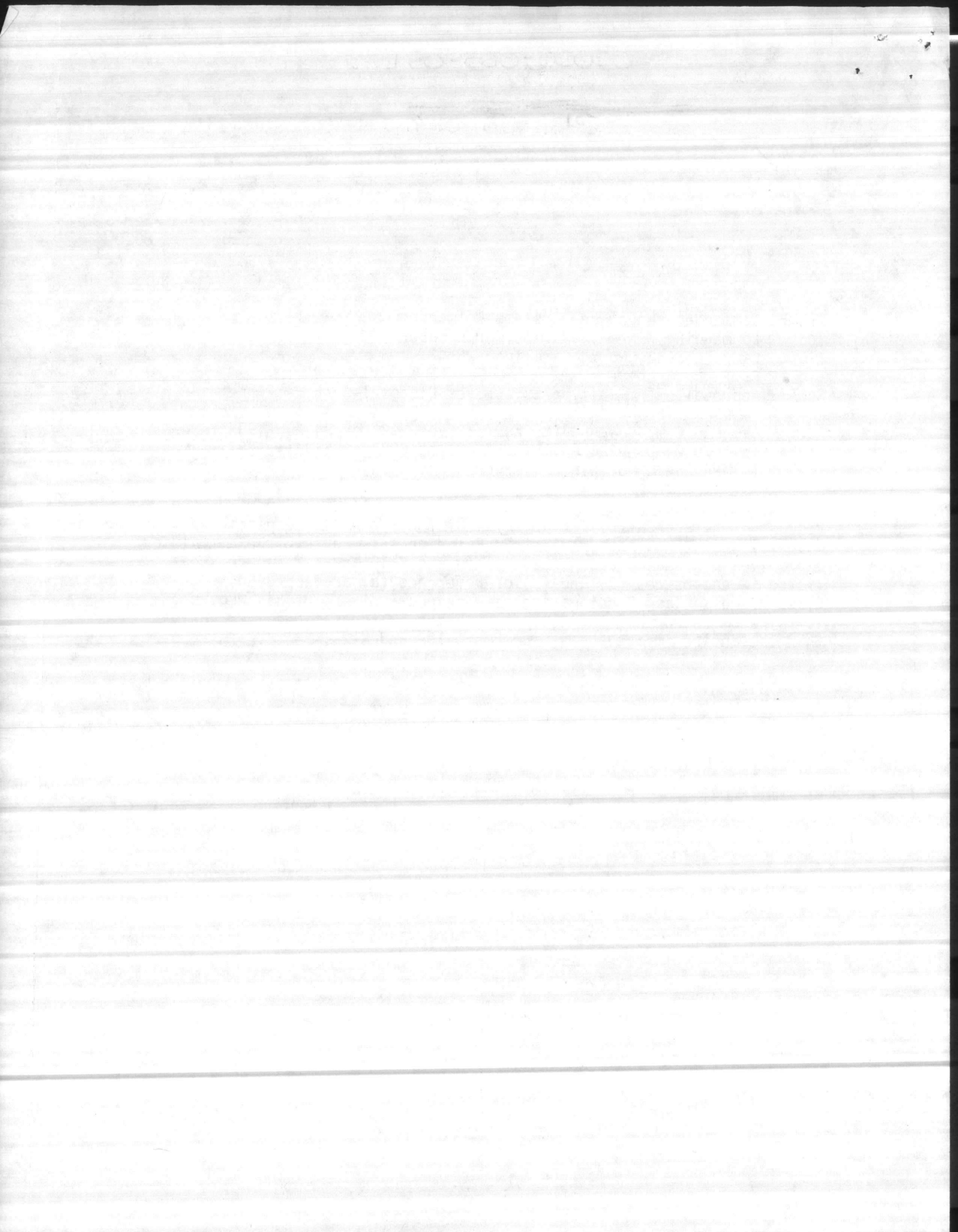
Ref: (a) MCB Camp Lejeune ltr EOD/HBR/ves 8027 of 24 Aug 1983  
(b) MCB Camp Lejeune ltr EOD/HBR/ves 8027 of 5 July 1983  
(c) NAVSEA OP-5 Volume 1 (Fourth Revision)

1. The additional data, forwarded by reference (a) in support of the request of reference (b) for approval of the ammunition/explosives disposal areas, has been reviewed. Based on this review, the ammunition/explosives disposal areas marked within the G-10 and K-2 impact areas listed in enclosures (2) and (3) of reference (a) are approved as a Class A and a Class B detonation site respectively. In this regard, it is recommended that the detonation sites be identified differently than the entire impact areas, such as G-10A and K-2A.

Copy to:  
CMC (Code LMW-50)

*M. R. Van Slyke*

M. R. VAN SLYKE  
By direction



EOD/HBR/ves  
8027  
24 August 1983

From: Commanding General  
To: Commander, Naval Sea Systems Command, (Code: SEA-06H11),  
Department of the Navy, Washington, D.C. 20362

Subj: Approval of Ammunition/Explosives Disposal Areas; request for

Ref: (a) NAVSEASYSKOM ltr 06H11/LDW over 8020, Ser 545, dtd  
27Jul83  
(b) NAVSEA OP-5 Volume 1 (Fourth Revision)

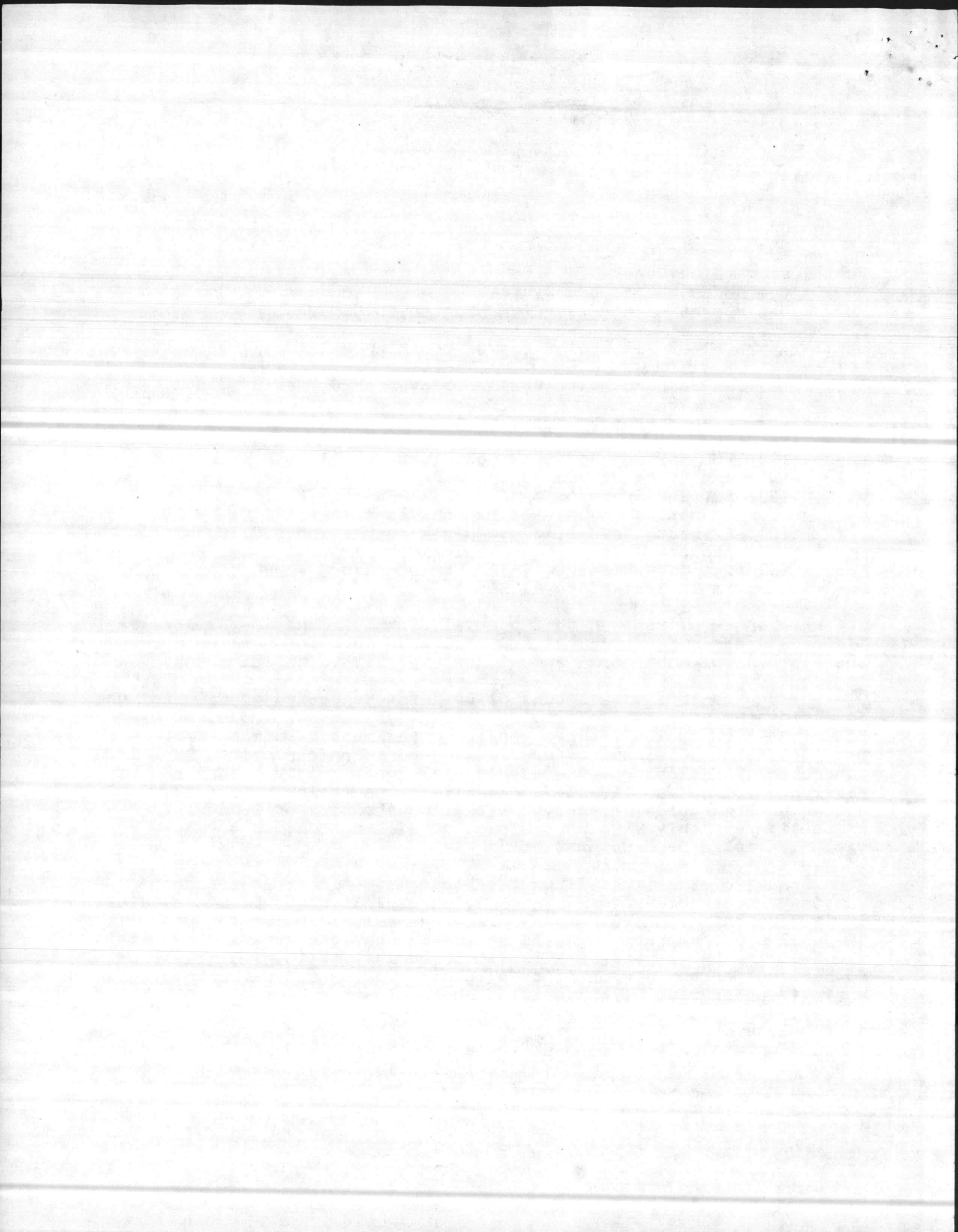
Encl: (1) EOD SOP and Safety Regulations for Disposal, Training,  
and Range Clearance Operations.  
(2) Extract, Camp Lejeune Special Map (1:50,000) showing  
requested Ammunition/Explosives Disposal Site, G-10  
(3) Extract, Camp Lejeune Special Map (1:50,000) showing  
requested Ammunition/Explosives Disposal Site, K-2  
(4) Quantity Distance Table for requested Ammunition/  
Explosives Disposal Sites G-10 and K-2

1. Reference (a) renewed the approval of the Ammunition/Explosives Disposal Areas K-326 and G-4A and requested more information for the approval of additional ammunition/explosive disposal areas.

2. Due to the intensive amount of training conducted at Camp Lejeune involving the use of live fire ranges, a substantial amount of Grade III ammunition/explosives are generated and must be disposed of on a routine basis. Disposal of Grade III ammunition/explosives is conducted by Explosive Ordnance Disposal Personnel in accordance with reference (b) and applicable EOD publications following the Standard Operating Procedures in enclosure(1). Quantities of Grade III ammunition/explosives to be disposed of will not exceed 500-lbs. explosive weight per detonation.

3. Because of the scheduling of various live fire ranges and the varying amounts of Grade III ammunition/explosives to be disposed of; it is necessary to have several different ammunition/explosives disposal areas approved. It is requested that the area marked within the G-10 and K-2 impact area listed in enclosures (2) and (3) be authorized for the disposal, by open pit burning and detonation, of unserviceable/Grade III ammunition and explosives.

4. Enclosure (4) is a Quantity/Distance Table for the requested ammunition/explosives disposal areas within the G-10 and K-2 impact area that exceeds the requirements listed in Table 11-2 of reference (b).

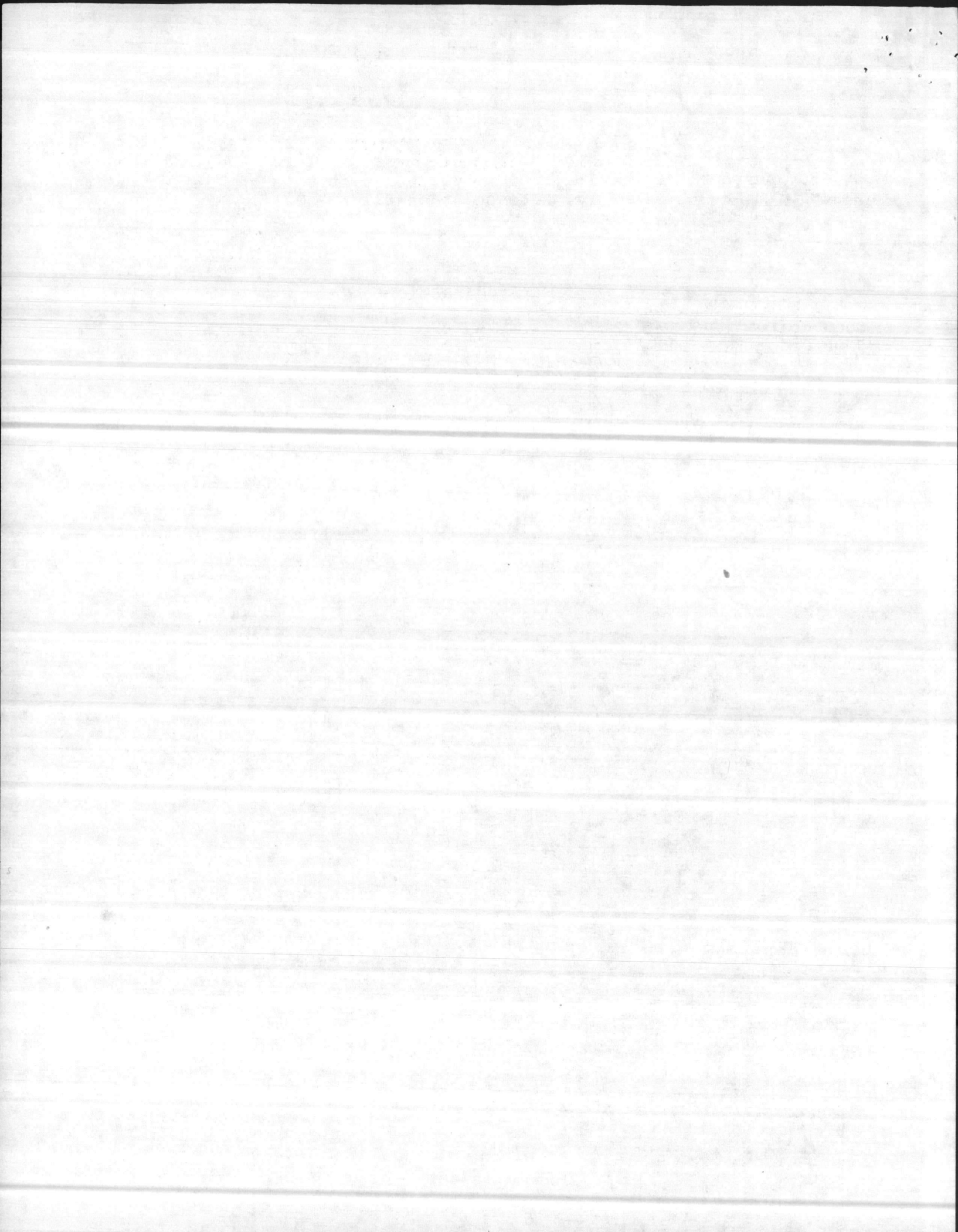


EOD/HBR/ves  
8027

5. For further information, point of contact at this command  
is 1stLT H. B. REDMOND, JR, Autovon: 484-0118/0382.

K. W. ZITZ  
By direction

Copy to:  
CMC (Code; LMW-50)



EXPLOSIVE ORDNANCE DISPOSAL TEAM  
Training Facilities Branch  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

EOD/HBR/hbr  
8027  
6 July 1983

EXPLOSIVE ORDNANCE DISPOSAL TEAM MEMORANDUM 8027

From: Explosive Ordnance Disposal Officer  
To: Explosive Ordnance Disposal Team

Subj: Standing Operating Procedures and Safety Regulations for Disposal,  
Training, and Range Clearance Operations.

Ref: (a) OP-5 Vol-1  
(b) BO P11102.1  
(c) EOD Publications

Encl: (1) Specific Instructions for Range Utilization

1. Purpose. To promulgate procedures, guidelines and responsibilities for EOD personnel aboard Camp Lejeune, in the conduct of disposal, training, and range clearance operations.

2. General. All general safety precautions for handling, transporting and disposing of explosive materials, as outlined in references (a) thru (c) and this memorandum, will be complied with during all disposal, training, and clearance operations.

3. Operational Procedures. Due to the variety of ordnance, differences in terrain and weather conditions, and the variety of conditions in which ordnance is found, one specific, standard operating procedure cannot be established. The following general procedures are to be adhered to whenever possible:

a. Planning.

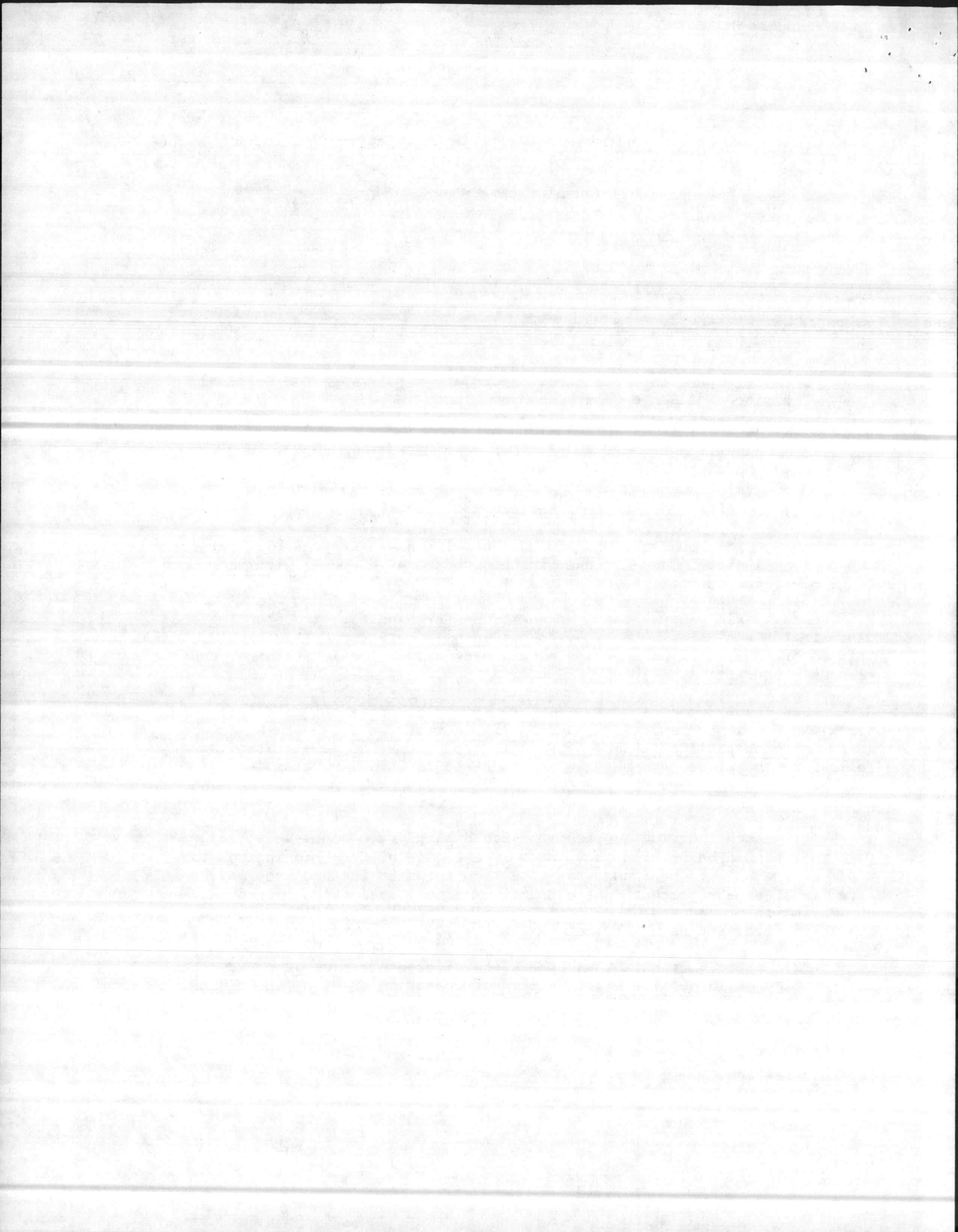
1) Each individual operation should be planned completely. All personnel should be briefed as to what is expected of them, to include the types of ordnance to be found, the condition in which the ordnance may be in, a review of safety precautions, evacuation/medical assistance procedures, communication procedures, and specific hazards particular to the planned operation (i.e. snakes, bogs, animals, etc...).

2) Especially hazardous operations (i.e. sanitation of range, etc.) will be planned in detail, with the plan of operation drawn up in writing.

b. Personnel.

1) The senior EOD officer or EOD technician is responsible for the entire operation.

ENCLOSURE (1)





2) Only qualified EOD personnel will be employed in the render safe of dud fired ordnance unless otherwise approved by the EOD officer or NCOIC.

3) A minimum of two (2) qualified personnel will be present during all disposal, training, and clearance operations unless otherwise approved by the EOD officer or NCOIC.

4) The number of support personnel (radioman, drivers, corpsman, etc...) will be kept to a minimum.

5) All personnel involved will be accounted for and their locations known at all times.

**c. Natural Conditions.**

1) All range clearance/disposal operations will cease in the event of an electrical storm.

2) Range clearance/disposal operations will be conducted only during daylight hours except for emergencies.

3) As authorized by reference (b) the maximum explosive weight per shot on Camp Lejeune is determined by the "Blast Focus Prediction Method" which may be requested on a daily basis, from Range Control. The recommended amount will not be exceeded unless authorized by proper authority.

**d. Communication.** In accordance with reference (b) two-way communications by radio will be established and maintained with Range Control while ranges are being used for clearance, training, or disposal operations. Should positive communications be lost with Range Control go into an immediate checkfire until communication is reestablished. Radio checks will take place at 30 minute intervals. Range Control information is as follows:

Callsign: Blackburn

Freq: 36.60

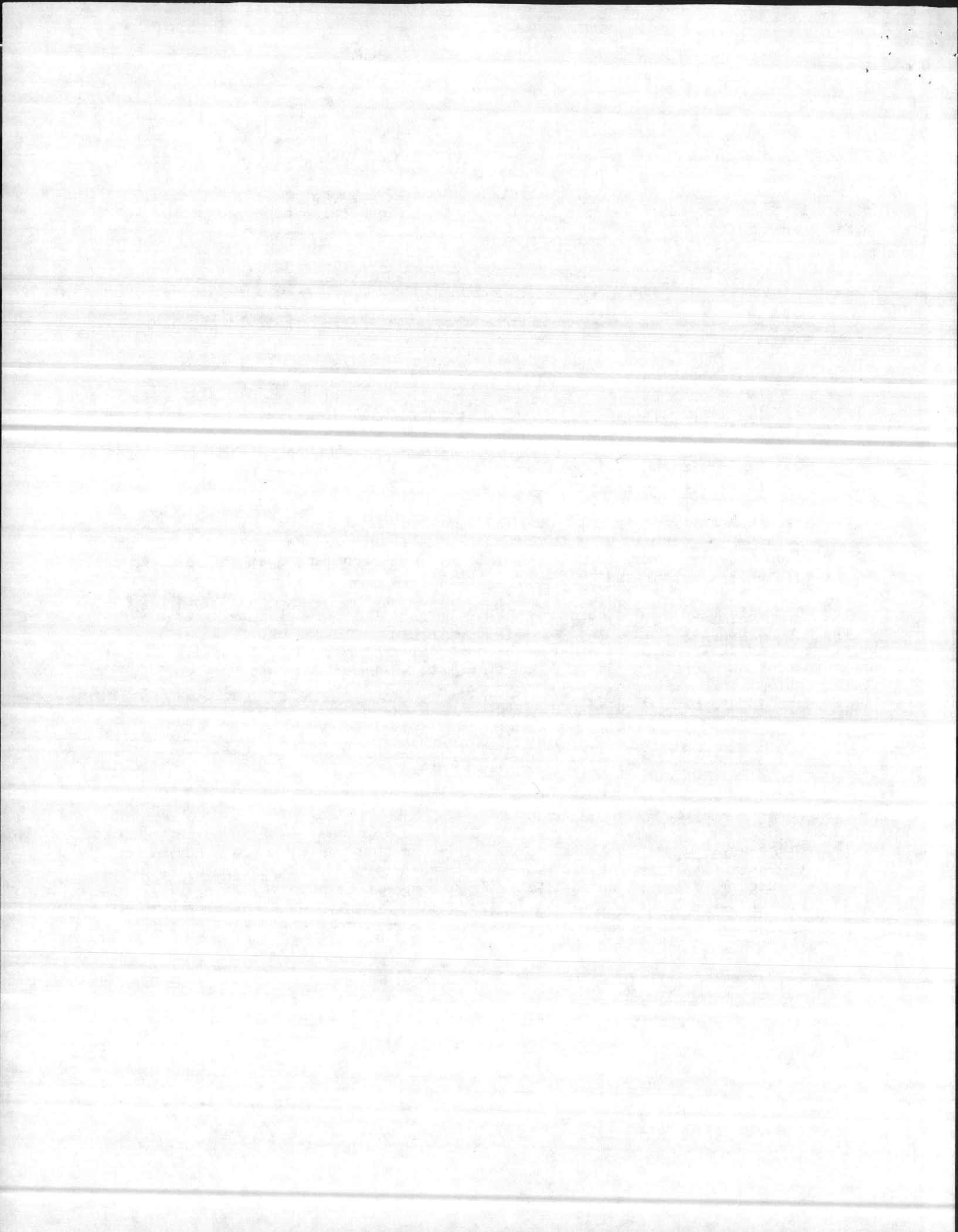
Phone: 3064

**e. Emergency Evacuation/Medical Assistance.** A corpsman with emergency evacuation vehicle (EOD vehicle is satisfactory), and all necessary medical equipment will be present during all disposal operations. (If a corpsman is not available sufficient first aid material will be on hand.) In the event of an accident on any range, all operations will cease. If emergency evacuation is required, the following information must be provided:

1) Location: Range Number and Grid Square.

2) Type of Accident: Explosive, Fire, etc...

ENCLOSURE (1)



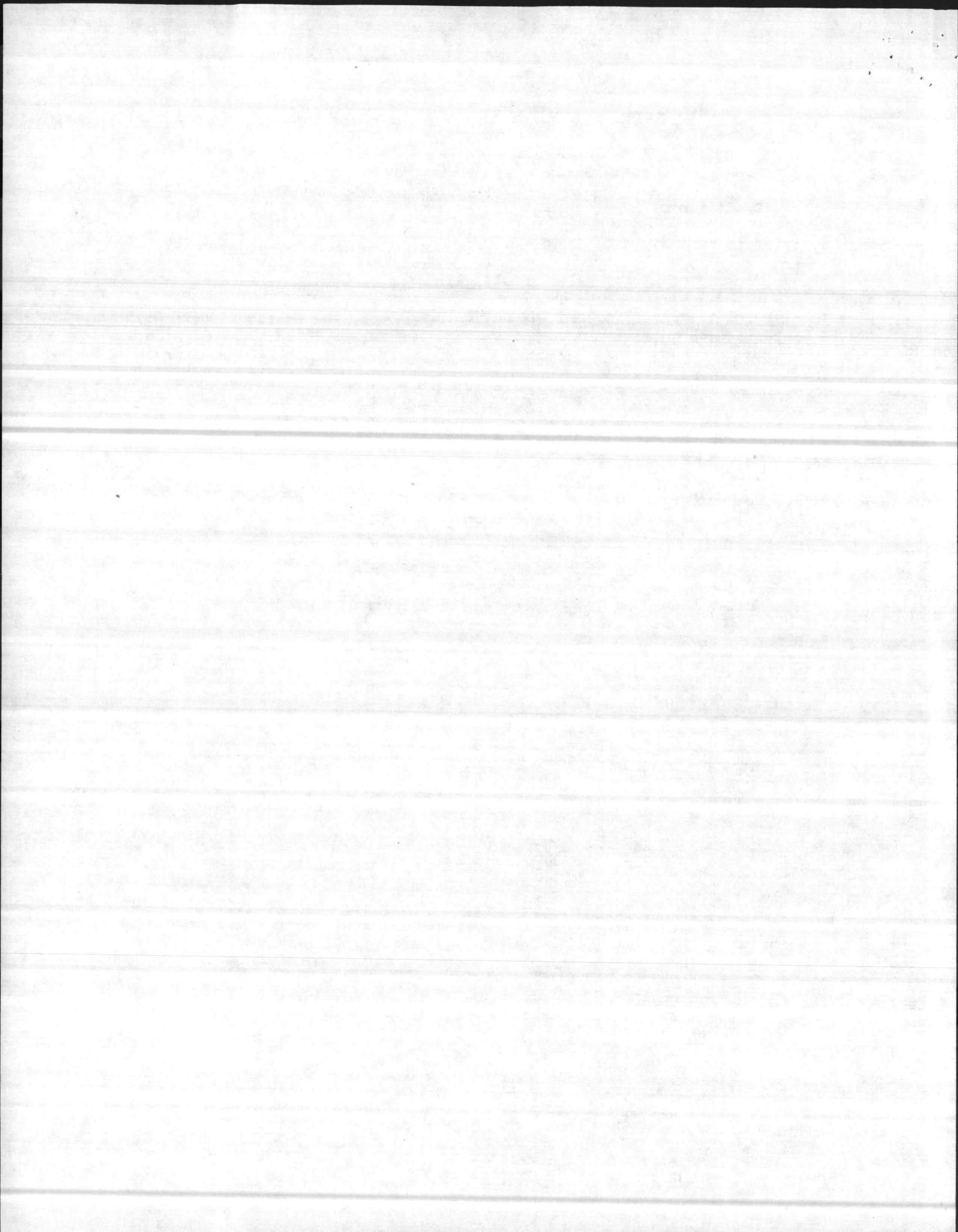
- 3) Number of Casualties:
- 4) Condition of Survivors:
- 5) Type of Assistance Required:
- 6) Marking of LZ for Helo: Smoke, Air Panels, etc...

Once the injured are cared for and evacuation completed, the accident scene will not be tampered with until a thorough investigation is completed.

*H. B. Redmond Jr.*  
H. B. REDMOND JR.  
1STLT USMC

Copy to:  
2d FSSG, Ammunition Company, BOD Platoon  
MAG-29, BOD Team

ENCLOSURE (1)

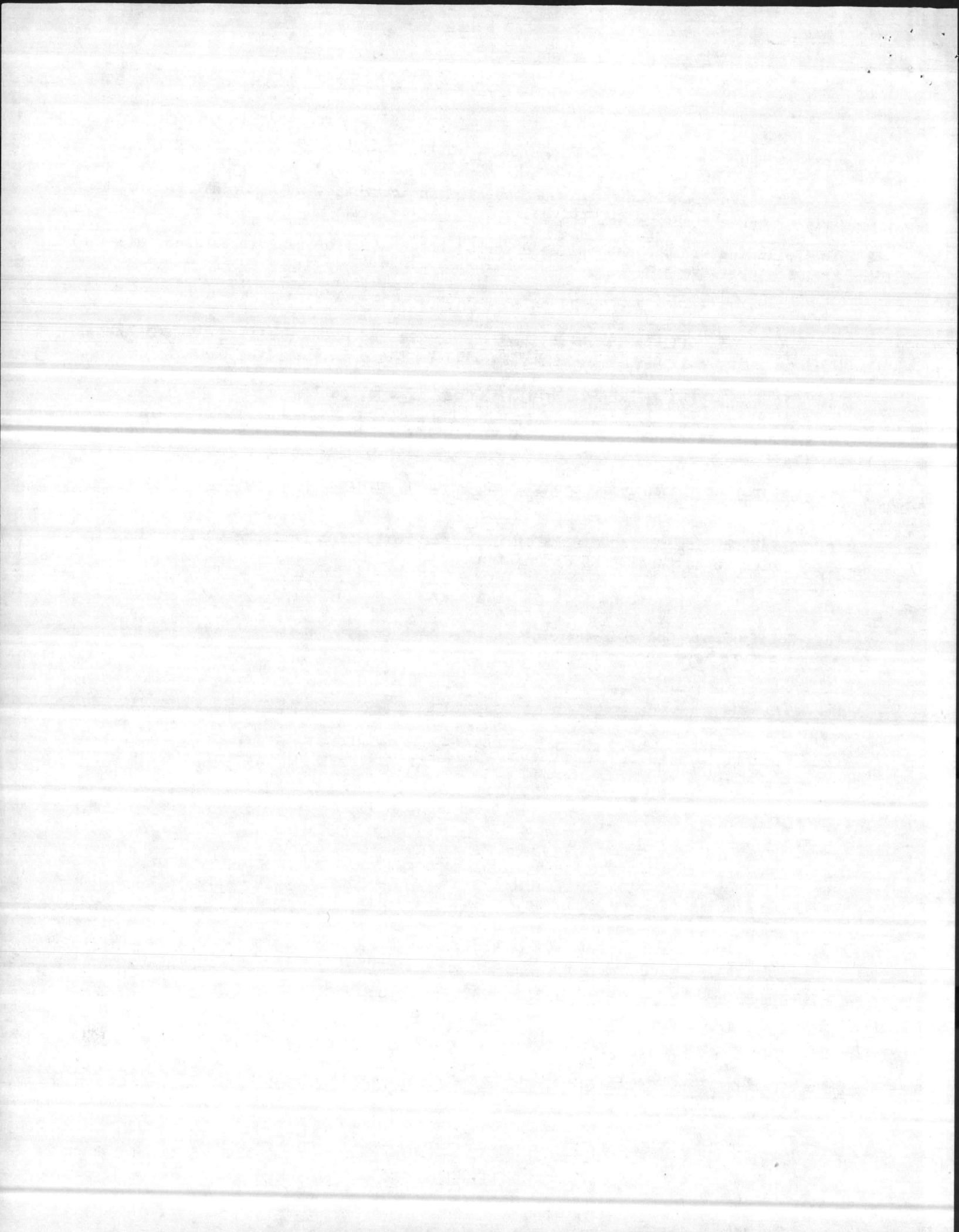


SPECIFIC INSTRUCTIONS FOR RANGE UTILIZATION.

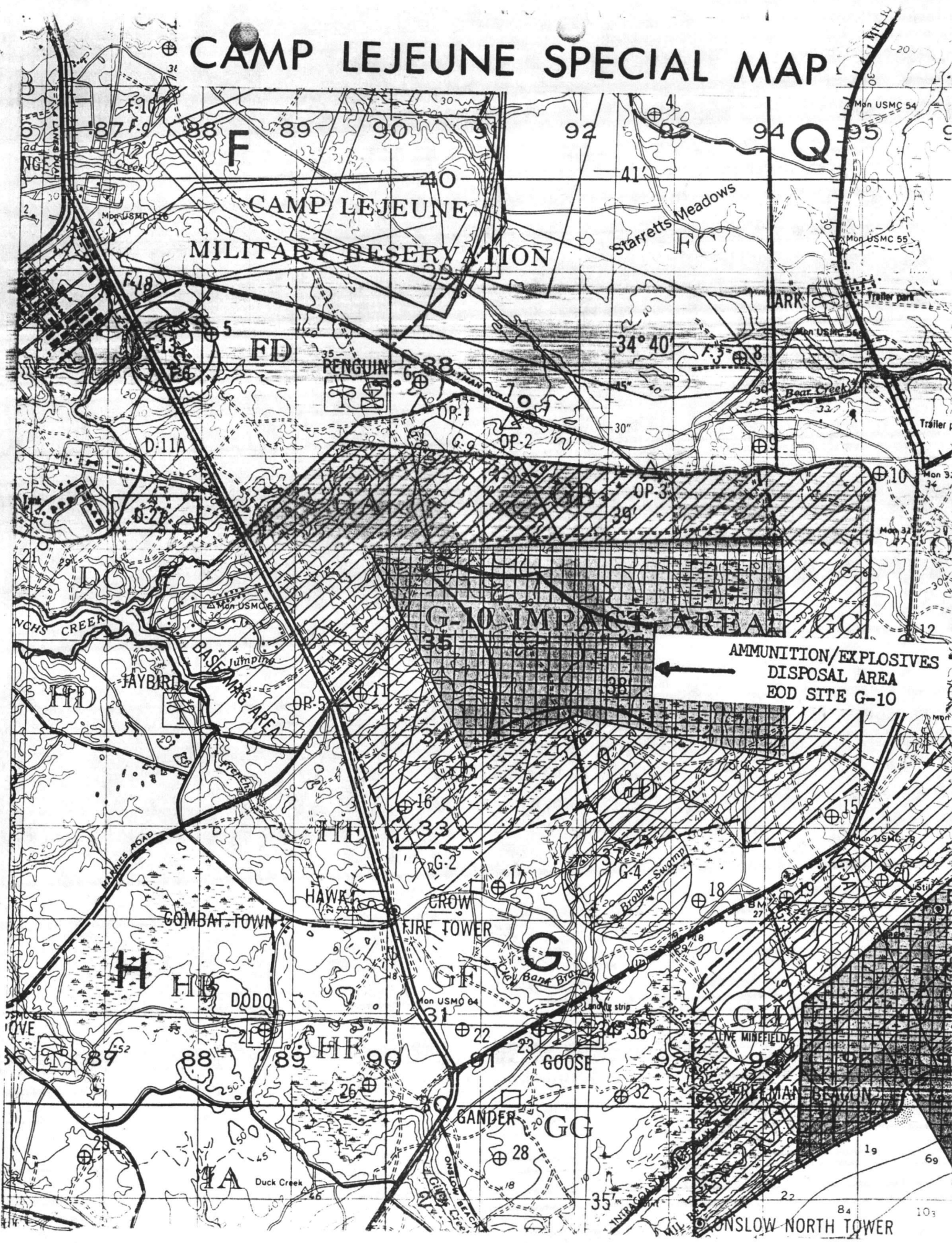
1. All explosive operations will be conducted in accordance with NAVSEA OP-5 Vol 1 and current applicable EOD directives.
2. The following will be accomplished during the conduct of range clearance, disposal, and training operations:
  - a. Postive communication will be established with Range Control.
  - b. A red flag will be flown at the entrance to the range utilized if applicable. If K-326 is being utilized, a second flag will be flown on the river bank.
  - c. Close the gate to the range access road if applicable.
  - d. Request clearance from Range Control prior to commencement of clearance, training, or disposal operations.
  - e. Before the priming of demolitions request permission to go hot from Range Control.
  - f. Check for low flying aircraft, and river boats if on a range that borders on a waterway prior to commencing of detonations.
  - g. Sound a thirty second warning with siren before detonation.
  - h. Notify Range Control when detonations have ceased, and again when EOD personnel secure from the range.

ENCLOSURE (1)

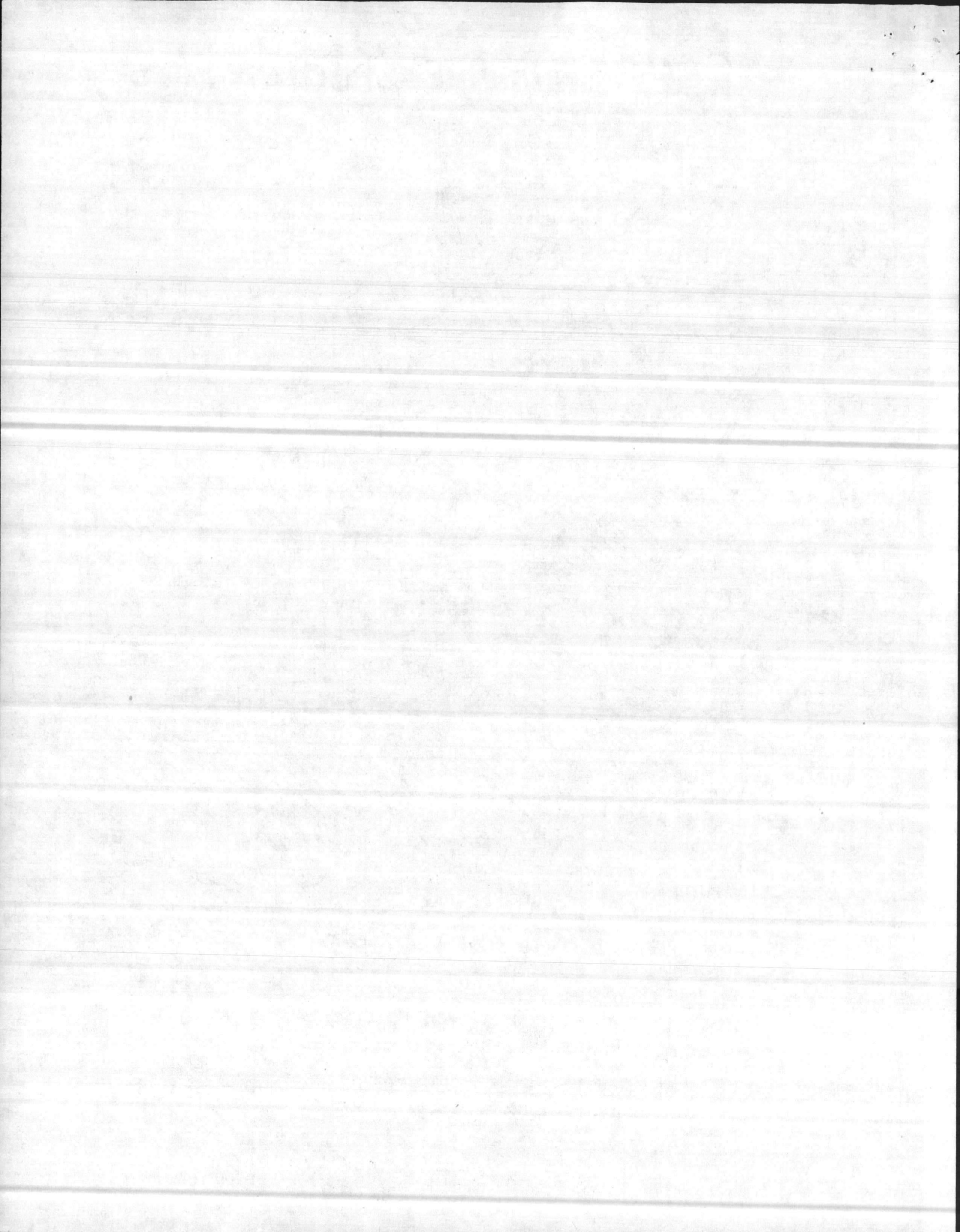
(4)



# CAMP LEJEUNE SPECIAL MAP

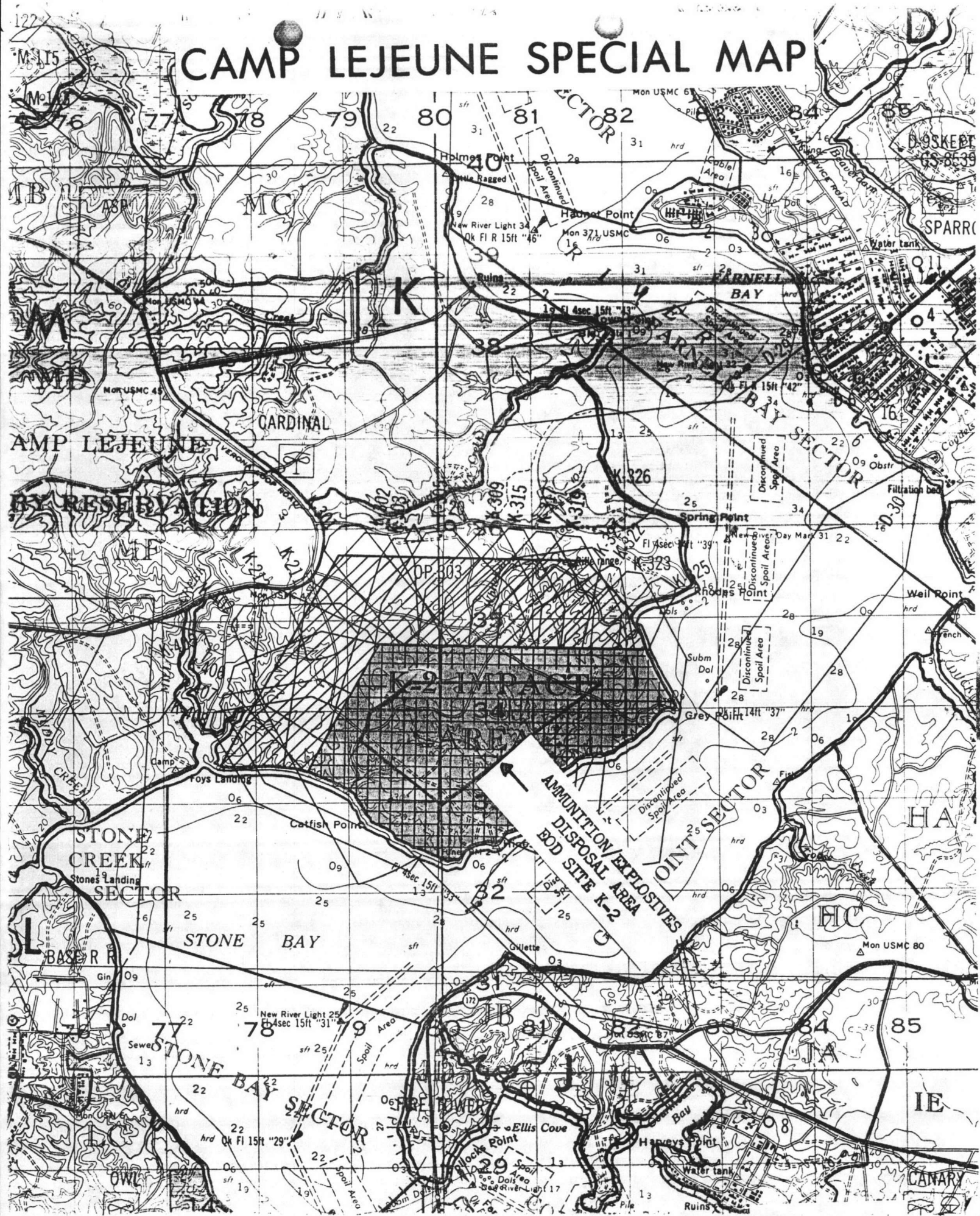


← AMMUNITION/EXPLOSIVES DISPOSAL AREA EOD SITE G-10

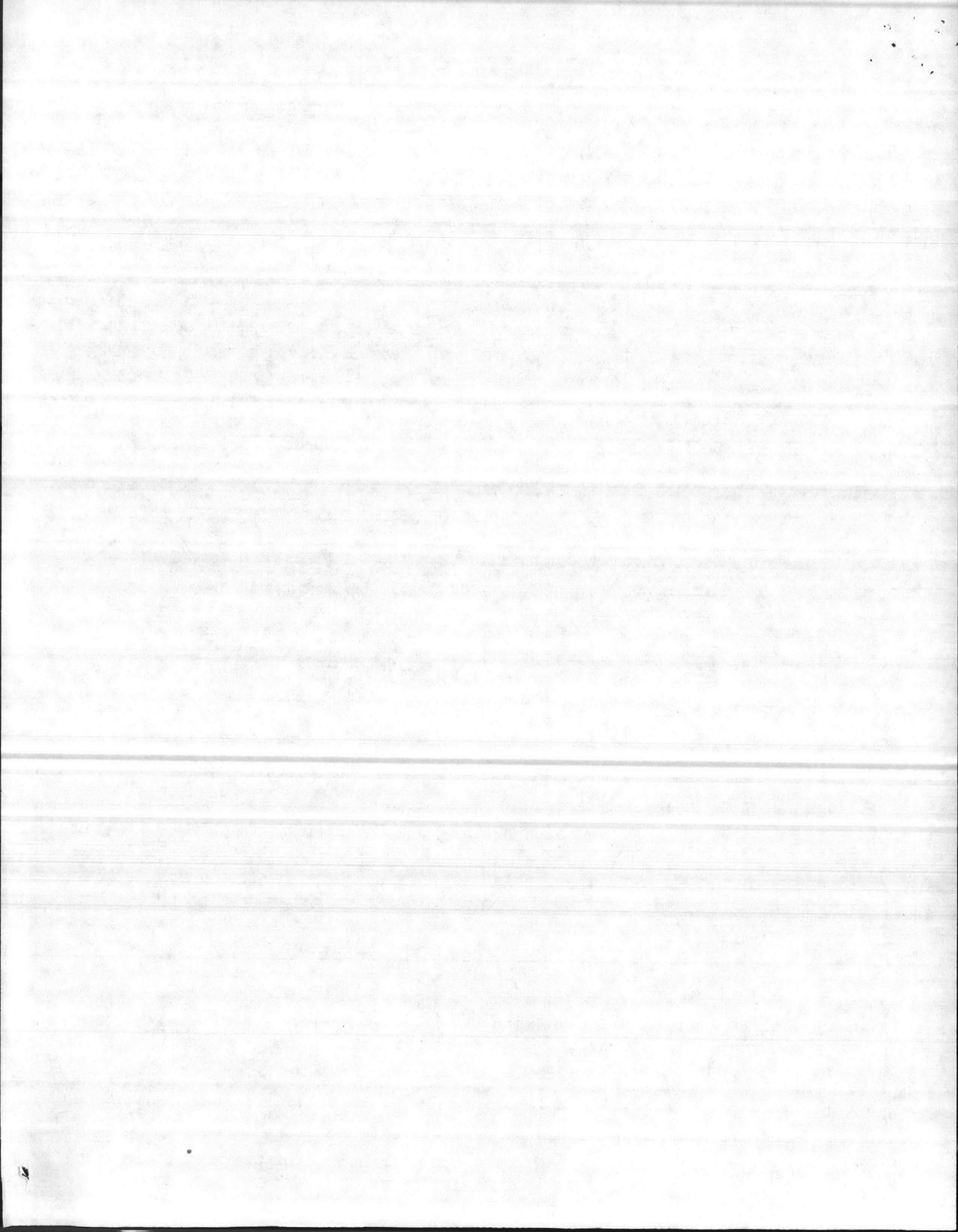




# CAMP LEJEUNE SPECIAL MAP



↑  
AMMUNITION DISPOSAL/EXPLOSIVES  
BOD SITE K-2



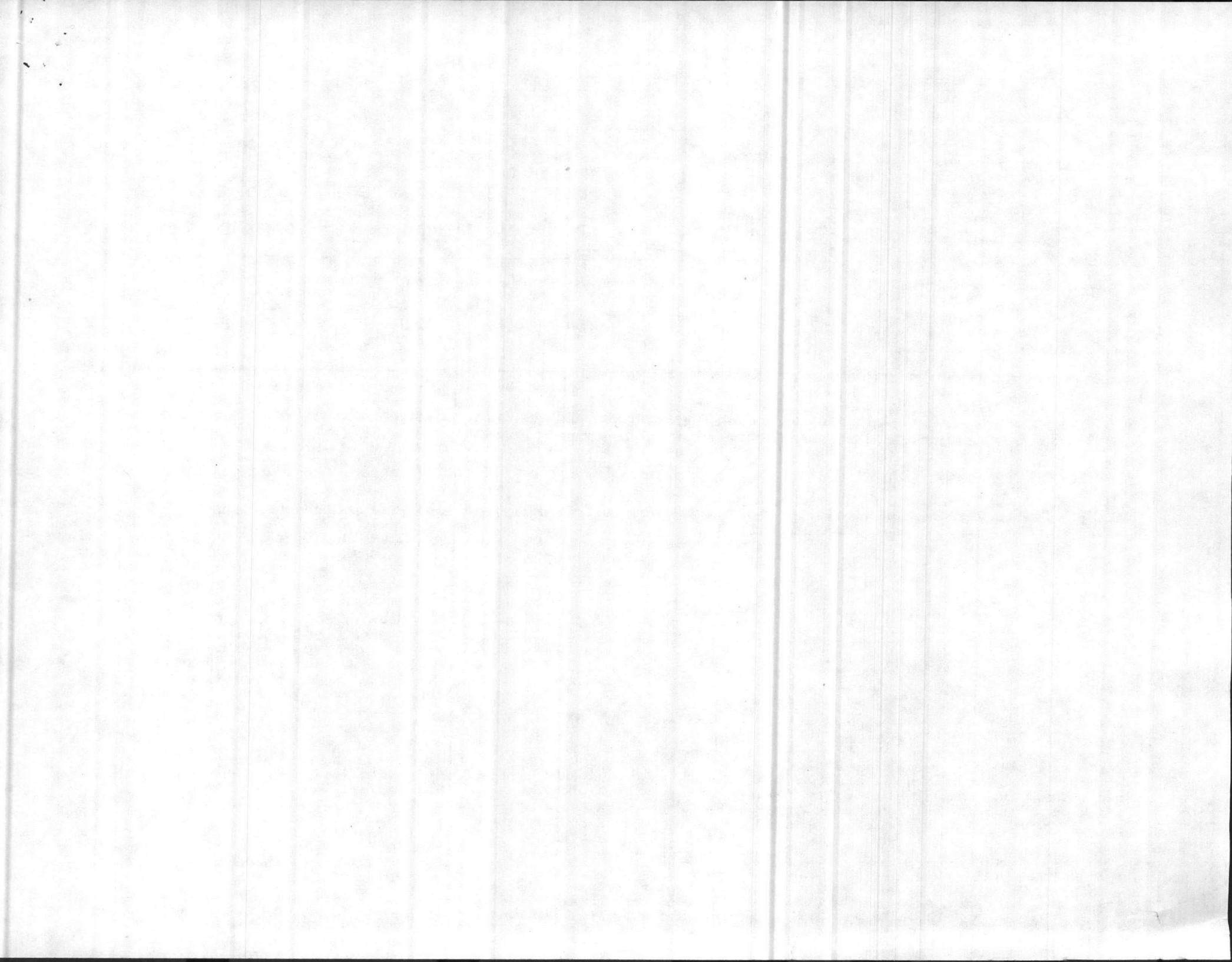
QUANTITY DISTANCE TABLE

SITE	CLASS OF DETONATION SITE	QUANTITY (IN POUNDS) OF EXPLOSIVE	DISTANCE TO (IN FEET) NEAREST INHABITED BUILDING	PERIMETER (IN FEET) OF CLEARED AREA	DISTANCE (IN FEET) TO NONSHELTERED RETREAT AREA	DISTANCE (IN FEET) TO EXPLOSIVE HOLDING AREA
G-10	A	500	5500	1000	6000	7000
K-2	B	500	7500	500	5000	10000

NOTE 1: Access to G-10/K-2 is controlled by Range Control and the buffer zone boundaries are clearly marked to prevent unauthorized personnel from entering the impact area.

NOTE 2: The requested area within the G-10 impact area is free of vegetation, except for short grass.

NOTE 3: The requested area within the K-2 impact area is free of vegetation, except for short grass.



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e. All equipment of value, such as motor cars and trucks, is at a safe distance from the hazard area.

f. All nearby ammunition, explosives, or similarly hazardous materials awaiting destruction, whether in a vehicle or not, are at a safe distance and protected from flying embers, fragments, sparks, and the like.

13-2.3.6. Postburn Requirements. The following requirements apply upon each completion of a burn cycle:

a. Personnel will remain in the protective shelter until all the material spread for burning has been consumed.

b. After the burning has visually exhausted itself, a wait of at least 5 minutes is required prior to anyone returning to the burn pad. The supervisor and one operator shall then be allowed to return to inspect the general area of the burn for completeness of burn, heat retainment, and any other dangerous conditions. If no unusual condition exists, the area may be wet down thoroughly with water.

c. A period of at least 2 hours from the wet down time is required before successive burns are conducted on the same burning pad. If water facilities are not available or unfavorable weather conditions; e.g., subfreezing temperatures, etc., exist, a period of 4 hours shall elapse prior to consideration of the pad for a successive burn.

d. Preparation for a successive burn can begin at a bed 50 feet and upwind from a previous burn, provided the previously used pad has been wet down thoroughly with water or a period of 4 hours has elapsed.

e. Successive burning cycles may be performed the same as the first as time permits.

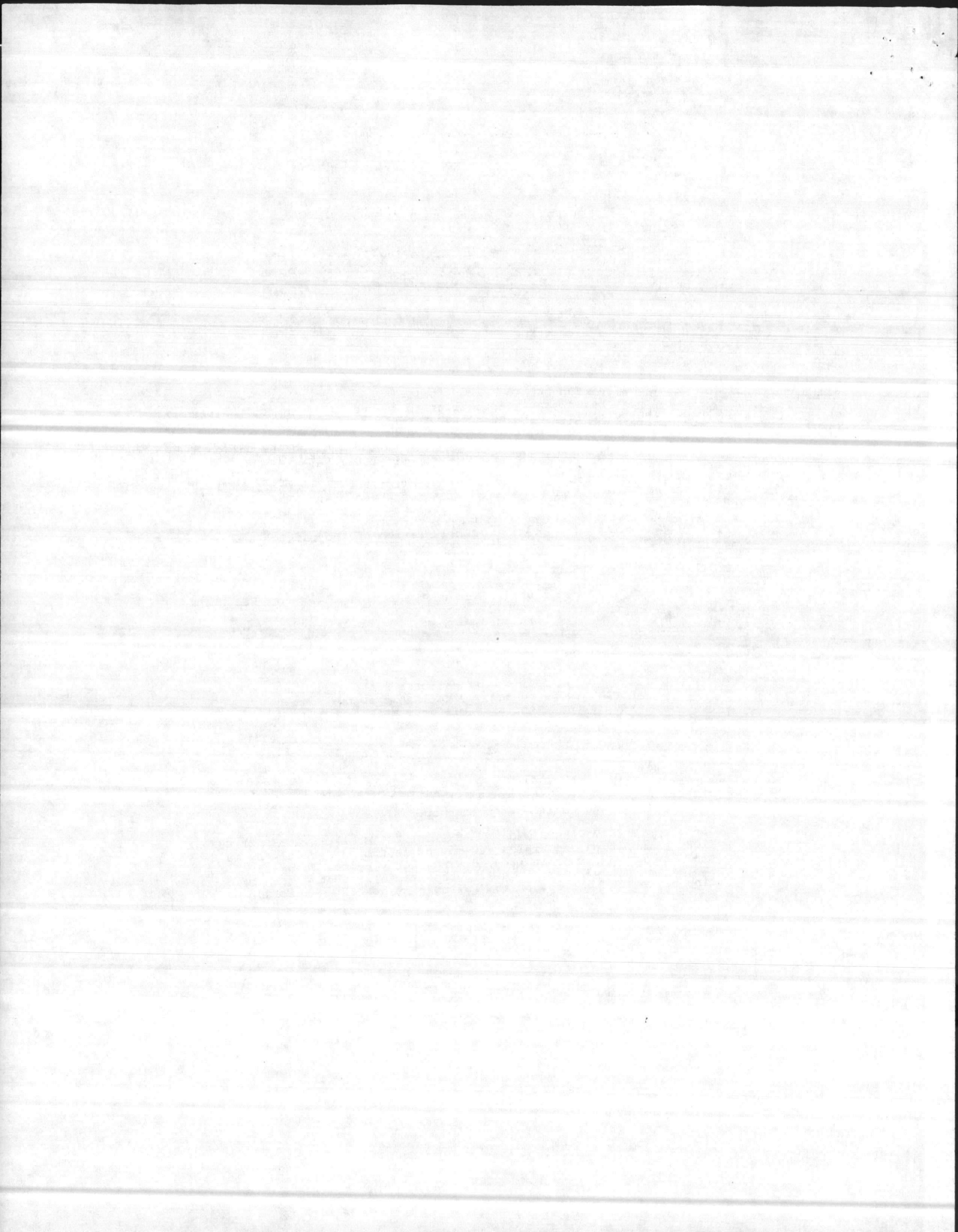
NOTE

Detailed procedures, specifications, methods for ignition of material to be burned, as well as procedures to be followed in the event of a misfire, etc. are found in NAVSEA SW060-AA-MMA-010.

13-3. DISPOSAL BY DETONATION

The following paragraphs identify the types of ammunition and explosives that can be disposed of by detonation, where and by whom the detonation operation should take place, and the precautions that shall be observed during detonation operations.

13-3.1. TYPES OF AMMUNITION AND EXPLOSIVES TO BE DESTROYED BY DETONATION. Ammunition and explosives may be destroyed directly by initiating the explosion of an item, or indirectly by the detonation of explosives placed in contact with the item(s). Destruction by detonation may be authorized for the following types of ammunition and explosives:



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- a. Detonators, both separate electric and percussion.
- b. Large quantities of dynamite in bulk.
- c. Explosive-loaded grenades.
- d. Group C chemical ammunition as described in paragraph 13-15.4.3.
- e. High explosive bombs.
- f. Mortar ammunition.
- g. Projectiles.
- h. Rocket/missile warheads.
- i. Mines.
- j. Bulk initiating explosives.

NOTE

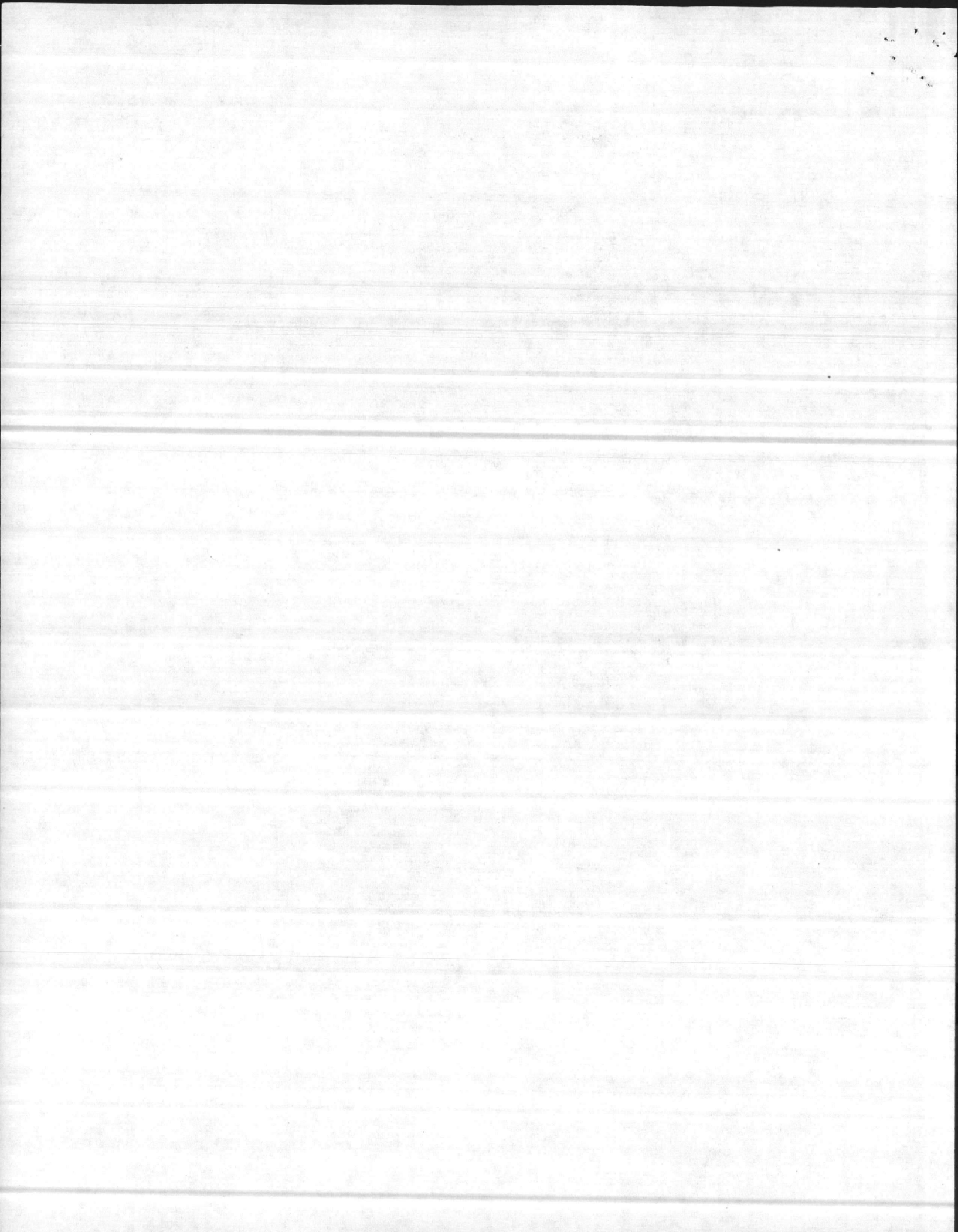
Under no circumstances shall ammunition, explosives or similar hazardous items be disposed of by detonation unless they are specifically identified and their characteristics are known.

13-3.2. GENERAL REQUIREMENTS FOR OPERATIONS. General requirements for detonation operations include choosing a detonation site and posting it, securing requisite environmental permits, choosing materials to be disposed of by detonation or stockpiled awaiting disposal, selecting and protecting personnel, observing precautions associated with the detonation process, and emergency procedures to be followed in case of an accident.

13-3.2.1. Requirements for Detonation Sites.

a. Demolition, demonstrations and routine EOD explosives operations shall be undertaken only in those areas or locations that specifically have been approved for that purpose. The classification of detonation sites is shown in table 13-1. Disposal of ammunition by detonation shall be accomplished at Navy and Marine Corps activities in areas approved by NAVSEASYSKOM. In instances when disposal takes place at another services facility such as an Army installation, the criteria established by the host activity shall be used. Minimum separation distances for non-essential personnel viewing the destruction of ammunition including EOD operations shall be determined as described in paragraph 13-1.4. The disposal shall not be undertaken until NAVSEASYSKOM has approved the operation.

b. All vegetation including dry grass, leaves, and other combustible materials shall be removed within a radius of 500 feet or firebrand distance, whichever is greater around the disposal site.





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Table 13-1. Classifications of Detonation Sites

CLASS OF DETONATION SITE	QUANTITY (IN POUNDS) OF EXPLOSIVE		DISTANCE (IN FEET) FROM POINT OF DETONATION TO					EARTH COVER REQUIRED
	OVER	NOT OVER	INHABITED BUILDING (6)	RADIUS OF CLEARED AREA	BARRICADED CREW SHELTER(1)	NON- SHELTERED RETREAT AREA	EXPLOSIVE HOLDING AREA(2)	
A	500	3000	5000	500	1000	5000	1800	NO
B	150	500	3000	500	500	3000	1245	YES(3)
C	25	150	2500	500	300	2500	1245	YES(3)
D(5)	0	25	1800(4)	500	200	1800(4)	1245	YES(3)

(1) These are the desired recommended distances and may be reduced; however, under no circumstances shall the distances be less than the intraline barricaded distances based on the maximum quantity of explosive involved for each special class of site. If these distances are reduced, personnel in the shelter may require ear protection.

(2) These are the desired recommended distances and may be reduced to the intraline barricaded distance provided the holding area is afforded as a minimum overhead and frontal protection.

(3) Earth cover required only when missile hazard is a safety factor.

(4) May be reduced to 1250 feet providing no (18) class 1, division 2 material is on the range.

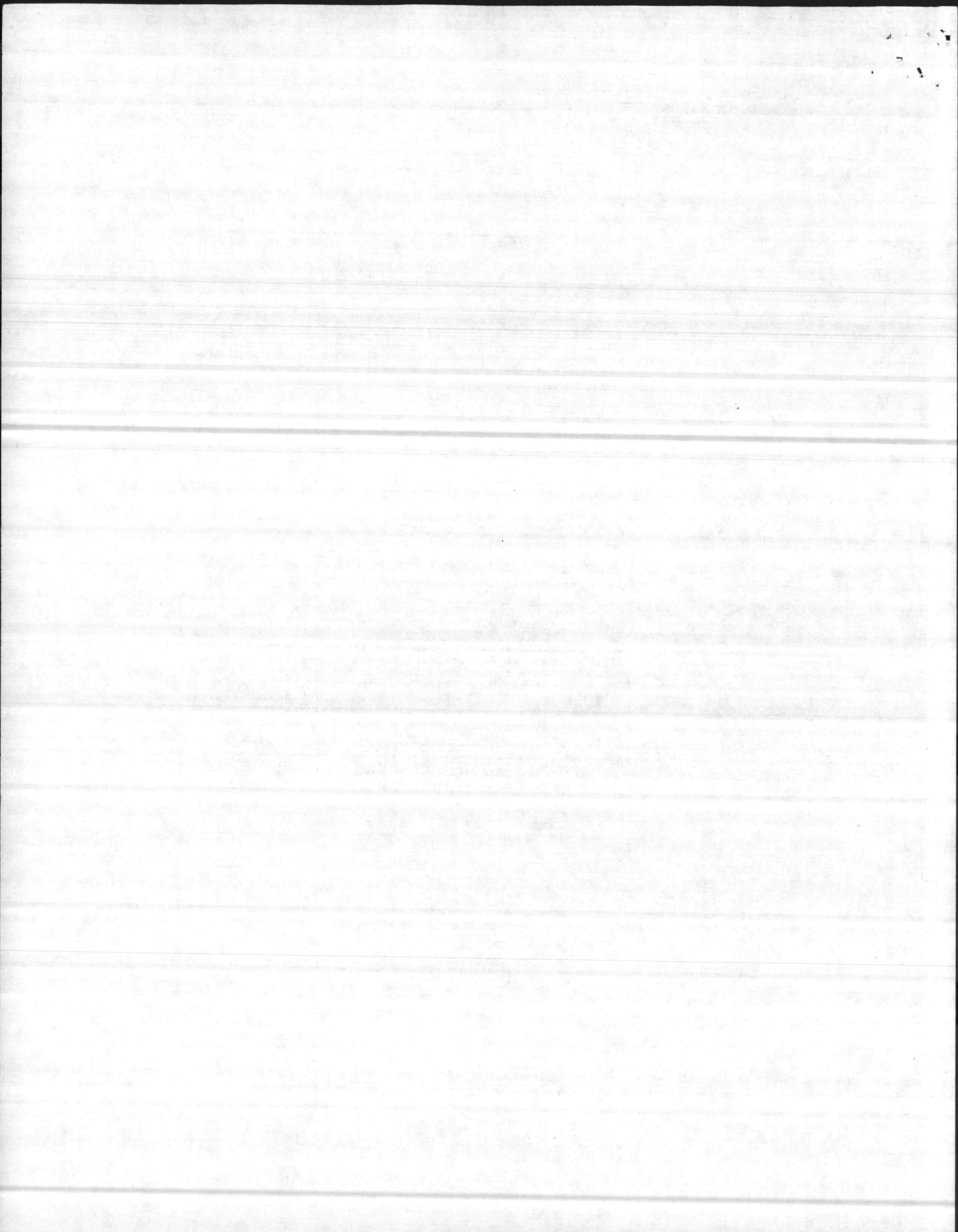
(5) Demolition training sites using 5 pounds explosives or less may be sited in accordance with paragraph 13-3.2.2.

(6) The criteria of paragraph 13-1.4.1b must be applied for the detonation of fragmenting explosive materials.

13-3.2.2. Demolition Training Ranges. Because the quantity of explosives required to maintain demolition and EOD proficiency is small, the criteria for training ranges can be reduced from the required criteria for other detonation sites. Table 13-2 provides the siting criteria for demolition training and explosives handling requalification. All vegetation including dry grass, leaves, and other combustible materials shall be removed within a radius of 50 feet from the point of detonation.

13-3.2.3. Posting of Prescribed Procedures. Prescribed procedures specific to the disposal of materials or items by detonation shall be posted at the detonation site. Furthermore, established station orders or regulations for the operation of detonation sites shall be posted.

13-3.2.4. Disposal Personnel. The following requirements apply to selection and protection of personnel conducting detonation operations:



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Table 13-2. Demolition Training Ranges

Quantity in Pounds of Explosives		Inhabited Building Distance (feet)	Restrictions
Over	Not Over		
2.5	5.0	500	Notes a, b, and c. Note d should be applied unless the barricade would pose an operational hazard.
1.25	2.5	300	Notes a, b, c, and d.
0	1.25	200	Notes a, b, c, and d.

NOTES:

- a) Only encased, non-fragment-producing explosives will be used.
- b) All detonations will be conducted on a 12-inch deep sand pit to eliminate secondary fragment hazards.
- c) Inhabited building separation distances will not be further reduced due to public traffic routes or use of EOD protective devices.
- d) A barricade shall be constructed 10 feet from the detonation point. The barricade will totally enclose the detonation site, be the equivalent of two sandbags thick, six feet high, and have two entrances 180° apart. Each entrance must also be barricaded to the same requirements to assure protection from fragments as shown in figure 13-1.

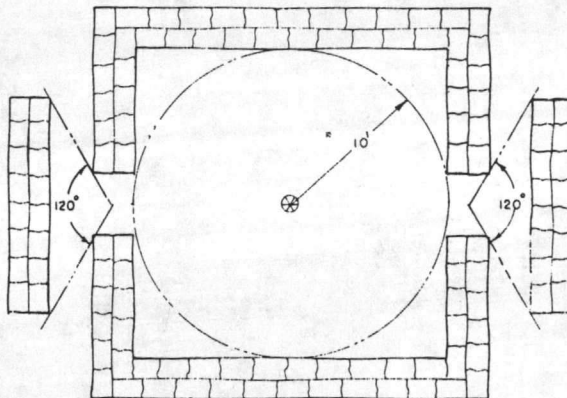


Figure 13-1. Detonation Training Range

