STORAGE IN APPROVED MAGAZINES OF ROCKET MOTOR, MK39 OR MK53 (SHRIKE), PACKED ONE PER CNU-248/E CONTAINER

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U.S. ARMY MATERIEL COMMAND DRAWING					
APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND NLH	DRAFTSMAN INGEBORG DEPPE				
Dovid a Pishouh	ENGINEER M. DAEUMER				
AZE-RA-ATZMA	SUPPLY ENGINEERING DIVISION				
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND	LOGISTICS ENGINEERING Thom Michel				
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REVISION NO. 1 AUGUST 1995	19	48	7059/4A	SP1-3-4-14-	
SEE THE REVISION LISTING ON PAGE 2		'	, 555, 14	22J14	

DO NOT SCALE

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE STORAGE PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO THE ROCKET MOTOR, MK39 OR MK53 (SHRIKE) PACKED ONE (1) PER CNU-248/E METAL SHIPPING AND STORAGE CONTAINER.
- C. FOR DETAIL OF THE CNU-248/E SHIPPING AND STORAGE CONTAINER, SEE U.S.AIR FORCE DWG NO.776013 AND CONTAINER DETAIL ON PAGE 3 OF THIS DRAWING.
 - CONTAINER DIMENSIONS - 60" L X 18-1/2" W X 23-1/8" H GROSS WEIGHT - - 330 POUNDS (APPROX)
- D. CAUTION: THIS ITEM IS IN A "PROPULSIVE STATE" AND MUST BE STORED WITH THE FORWARD END FACING TOWARD THE SIDE WALLS AND/OR REAR WALL AS INDICATED BY THE DIRECTIONAL ARROWS ON THE STORAGE VIEWS. ADDITIONALLY, CONTAINERS MUST NOT BE STACKED MORE THAN SIX (6) CONTAINERS HIGH.
- E. THE STORAGE PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLICABLE FOR STORAGE IN VARIOUS TYPES AND SIZES OF MAGAZINES. THE STORAGE PROCEDURES DEPICTED FOR THE SPECIFIC TYPES OF MAGAZINES MAY ALSO BE UTILIZED TO STORE CONTAINERS IN OTHER TYPES OF APPROVED MAGAZINES. MINOR ADJUSTMENTS MAY BE MADE TO FACILITATE STORAGE IN OTHER TYPES OF MAGAZINES, HOWEVER, THE BASIC PRINCIPLES AS DEPICTED HEREIN WILL BE FOLLOWED.
- F. AISLE DIMENSIONS SHOWN FOR STORAGE PROCEDURES IN MAGAZINES MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS, AND/OR AVAILABLE MATERIAL HANDLING EQUIPMENT (MHE), HOWEVER, AN 18" MINIMUM INSPECTION AISLE MUST BE MAINTAINED AT THE AFT END OF THE CONTAINER WHERE THE HUMIDITY INDICATOR IS LOCATED.
- G. CAUTION: THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED. THIS LIMITATION MAY REQUIRE A QUANTITY REDUCTION FROM THE STORAGE AS SHOWN.
- H. WEDGES ARE REQUIRED TO PERMIT LEVEL STACKING OF THE CONTAINERS IN IGLOO, ARCH TYPE AND STRADLEY MAGAZINES, WHICH HAVE FLOORS THAT SLOPE TOWARD THE SIDEWALL OF THE MAGAZINE. IN OVAL ARCH, STEEL ARCH, CORBETTA, AND RECTANGULAR MAGAZINES, STACK STABILIZING DUNNAGE IN THE FORM OF "SHIMS" PROBABLY WILL BE REQUIRED TO ACHIEVE SOUND AND ACCEPTABLE STABLE STACKS. SHIM MATERIAL OF VARYING THICKNESS WILL BE USED AS REQUIRED TO GAIN LEVEL OR NEARLY LEVEL STACKS AND SOLID BEARING WITHIN A STACK FROM THE FLOOR OF A MAGAZINE TO THE TOP OF THE STACK.
- J. IF AVAILABLE MHE PERMITS, ADDITIONAL CONTAINERS MAY BE STORED WITHIN THE FRONTAL AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- K. STORED CONTAINERS MUST NOT CONTACT THE WALLS OF A MAGAZINE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, CONTAINERS MAY BE ELIMINATED FROM THE DEPICTED STORAGE PATTERN AS NECESSARY.
- L. OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE WHICH IS PARTIALLY FILLED WITH THE DESIGNATED ITEM.
- M. THE USE OF 1" X 6" X 18" FLOOR DUNNAGE UNDER CONTAINER STACKS, AS DEPICTED THROUGHOUT THESE PROCEDURES, IS OPTIONAL. THE PURPOSE OF USING FLOOR DUNNAGE IS TO KEEP THE SKIDS OF A CONTAINER DRY, THUS AIDING IN PREVENTING DETERIORATION DUE TO CORROSION. THEREFORE, FLOOR DUNNAGE SHOULD BE USED WHEN STORING IN A MAGAZINE THAT IS KNOWN TO HAVE A "DAMP" FLOOR. STACKS REQUIRING WEDGES, AS SPECIFIED IN NOTE "H" ABOVE, WILL NOT REQUIRE USE OF 1" X 6" FLOOR DUNNAGE. RANDOM LENGTH OF 1" X 6" FLOOR DUNNAGE WAY BE USED IF OPERATION OF MHE PERMITS.

(CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

LUMBER - - - - - - : SEE TM 743-200-1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.

STRAPPING, STEEL - -: ASTM D3953; FLAT STRAPPING, TYPE 1, HEAVY DUTY, FINISH B (GRADE 2).

SEAL, STRAP ---: ASTM D3953; CLASS H, FINISH B (GRADE 2), DOUBLE NOTCH TYPE, STYLE I, II,

OR IV.

ANTI-CHAFING
MATERIAL - - - - -: MIL-B-121 (OR EQUAL); NEUTRAL BARRIER

MATERIAL.

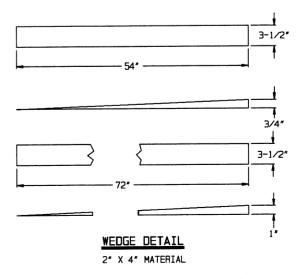
(GENERAL NOTES CONTINUED)

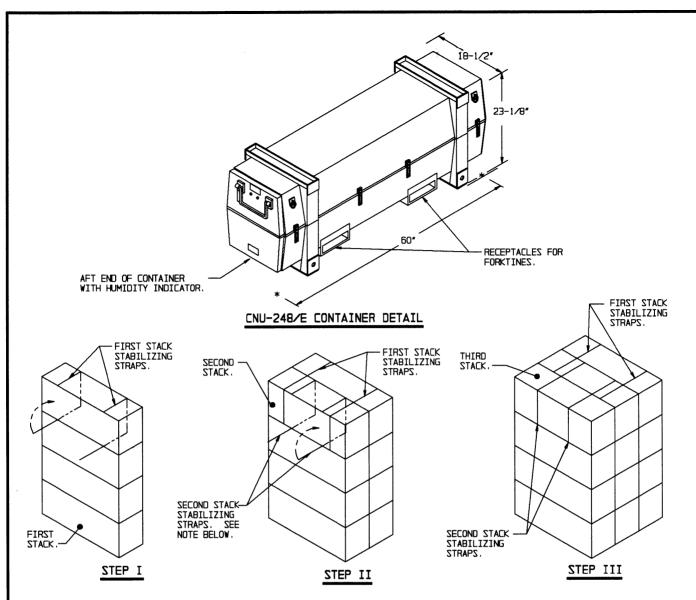
- N. STACK STABILIZING STRAPS, 3/4"X .028" OR THICKER, X 10'-0" STEEL STRAPPING WILL BE INSTALLED AROUND THE FOURTH LAYER CONTAINERS OF TWO ADJACENT CONTAINERS STACKS IF EITHER STACK IS FIVE OR MORE CONTAINERS HIGH; TWO (2) STRAPS ARE REQUIRED FOR EACH DOUBLE STACK AS SHOWN. CAUTION: A SINGLE STACK MUST NOT BE STACKED MORE THAN FOUR (4) CONTAINERS HIGH WITHOUT BEING STRAPPED TO AN ADJACENT STACK. POSITION ANTI-CHAFING MATERIAL UNDER STEEL STRAPPING AT ALL POINTS OF STRAP/CONTAINER CONTACT. SEAL THE LAP JOINT OF THE STRAPPING WITH ONE (1) STRAP SEAL LOCATED SO AS NOT TO BE IN CONTACT WITH THE CONTAINER.
- O. IF THE QUANTITY OF CONTAINERS FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN HEREIN DUE TO THE PERMITTED "EXPLOSIVE LIMIT" OR FOR ANY OTHER REASON, SUCH AS A LIMITED QUANTITY TO BE STORED, THE DELINEATED PROCEDURES ARE TO BE ADJUSTED BY OMITTING STACKS RATHER THAN BY OMITTING LAYERS.
- P. THE HEIGHT OF THE PACKAGE GUARD ON SOME FORKLIFT TRUCKS MAY NOT PERMIT PLACEMENT OF SOME TOP LAYER CONTAINERS IN THE STACKS SHOWN IN THE STORAGE VIEWS HEREIN, UNLESS TWO UPPER CONTAINERS ARE HANDLED AS ONE LIFT OR THE PACKAGE GUARD IS REMOVED (TINE CARRIAGE WILL IN MOST INSTANCES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT TRUCK OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO CONTAINERS AS ONE LIFT.
- O. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 5" MATERIAL IS ACTUALLY 3/4" THICK BY 5-1/2" WIDE.
- R. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.
- S. CONTAINERS PRESENTLY STORED IN ACCORDANCE WITH A PRIOR APPROVED DRAWING NEED NOT BE RE-STORED SOLELY TO CONFORM TO THE PROCEDURES SPECIFIED IN THIS DOCUMENT.
- T. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTIONS WHICH ARE IMMEDIATELY ADJACENT TO THE DEPICTED STORAGE METHODS.

REVISION

REVISION NO. 1, DATED AUGUST 1995, CONSISTS OF:

- UPDATING DRAWING FORMAT, GENERAL NOTES AND MATERIAL SPECIFICATIONS, TO CURRENT STANDARDS.
- 2. ADDING PROCEDURES FOR STEEL ARCH MAGAZINE.





STACK STABILIZING STRAP DETAIL

NOTE: ALL STACKS MORE THAN 4 LAYERS HIGH MUST BE STRAPPED TO AN ADJACENT STACK WITH ONE PAIR OF STRAPS PER DOUBLE-STACK USING STEP I AND II EXCEPT THAT SECOND STACK STABILIZING STRAPS SHOWN IN STEP II WILL BE OMITTED. IN ROWS WHERE THE OLUANTITY OF STACKS IS AN UNEVEN NUMBER, (E.G., 45 STACKS AS SHOWN IN THE PLAN VIEW ON PAGE 4), STEPI,II, AND III AS SHOWN WILL BE USED TO PROPERLY STRAP THE LAST 3 STACKS TOGETHER. SEE GENERAL "N" ON PAGE 2 FOR ADDITIONAL GUIDANCE.

STEP I

POSITION THE BOTTOM THREE CONTAINERS IN THE "FIRST STACK". LAY THE TWO FIRST STACK STABILIZING STRAPS ACROSS THE TOP OF THE THIRD HIGH CONTAINER THEN POSITION THE FOURTH CONTAINER. POSITION THE STRAPS TO ENCIRCLE THE FOURTH CONTAINER, AS SHOWN IN STEP I, AND LET ENDS OF STRAPS HANG OVER SIDE OF STACK.

STEP II

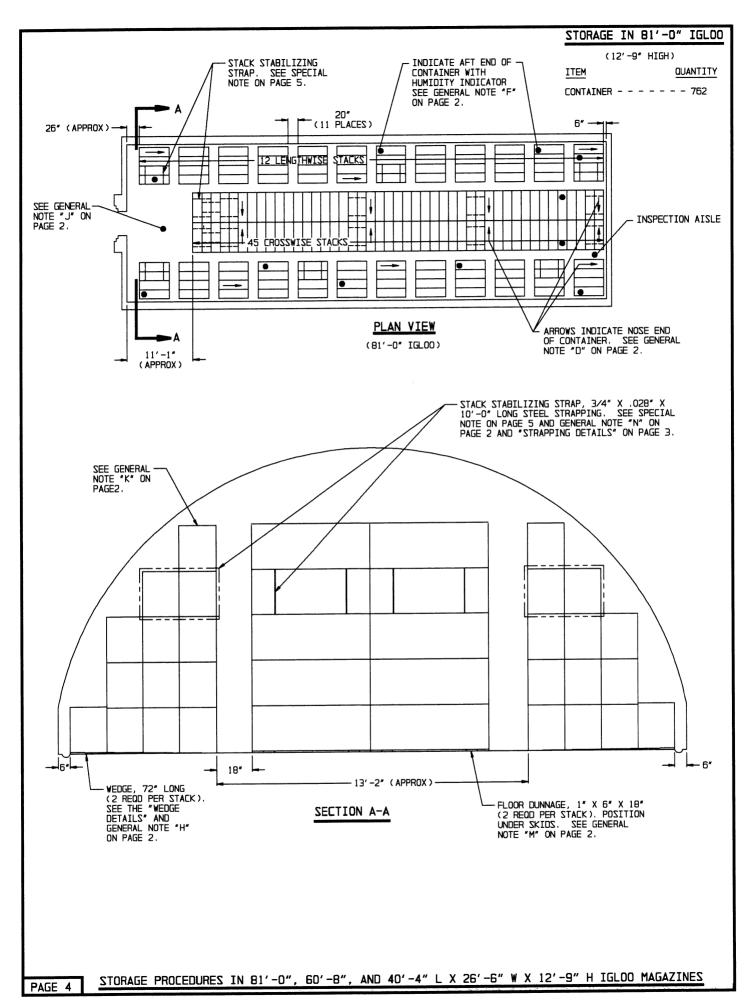
POSITION THE BOTTOM THREE CONTAINERS IN THE "SECOND STACK". LAY THE TWO SECOND STACK STABILIZING STRAPS ACROSS THE TOP OF THE THIRD HIGH CONTAINER THEN POSITION THE FOURTH CONTAINER. POSITION THE TWO FIRST STACK STABILIZING STRAPS TO ENCIRCLE THE FOURTH CONTAINER, AS SHOWN IN STEP II, AND SEAL EACH STRAP WITH ONE STRAP SEAL. POSITION THE FIFTH AND SIXTH CONTAINER ON TOP OF THE FOURTH CONTAINER IN THE FIRST STACK.

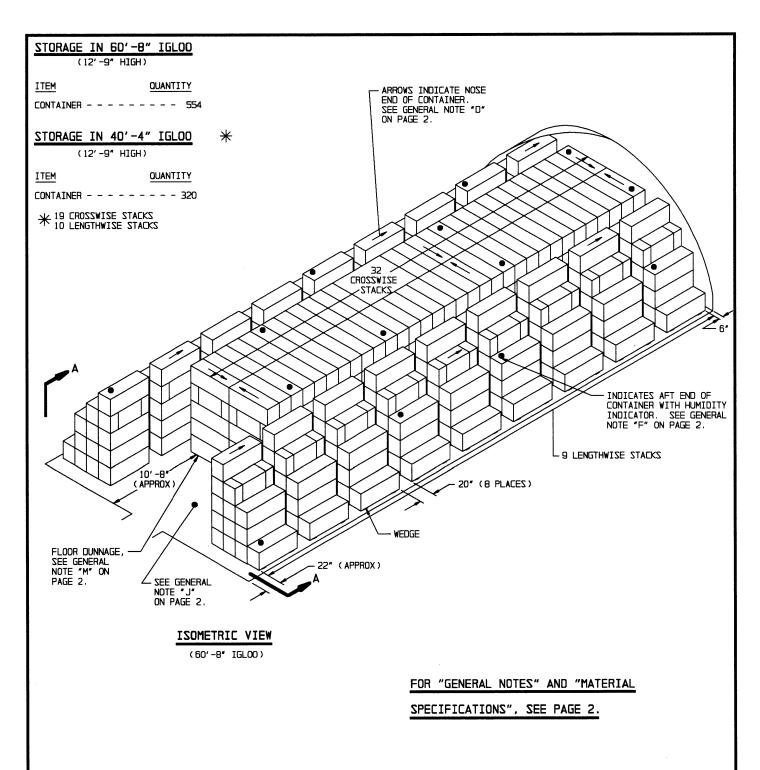
STEP III

POSITION THE BOTTOM THREE CONTAINERS IN THE "THIRD STACK". LAY THE TWO SECOND STACK STABILIZING STRAPS ACROSS THE TOP OF THE THIRD HIGH CONTAINER. THEN POSITION THE FOURTH CONTAINER. POSITION THE TWO SECOND STACK STABILIZING STRAPS TO ENCIRCLE THE FOURTH CONTAINER, AS SHOWN IN STEP III, AND SEAL EACH STRAP WITH ONE STRAP SEAL. POSITION THE FIFTH AND SIXTH CONTAINER ON TOP OF THE FOURTH CONTAINER IN THE SECOND AND THIRD STACKS.

DETAILS

PAGE 3

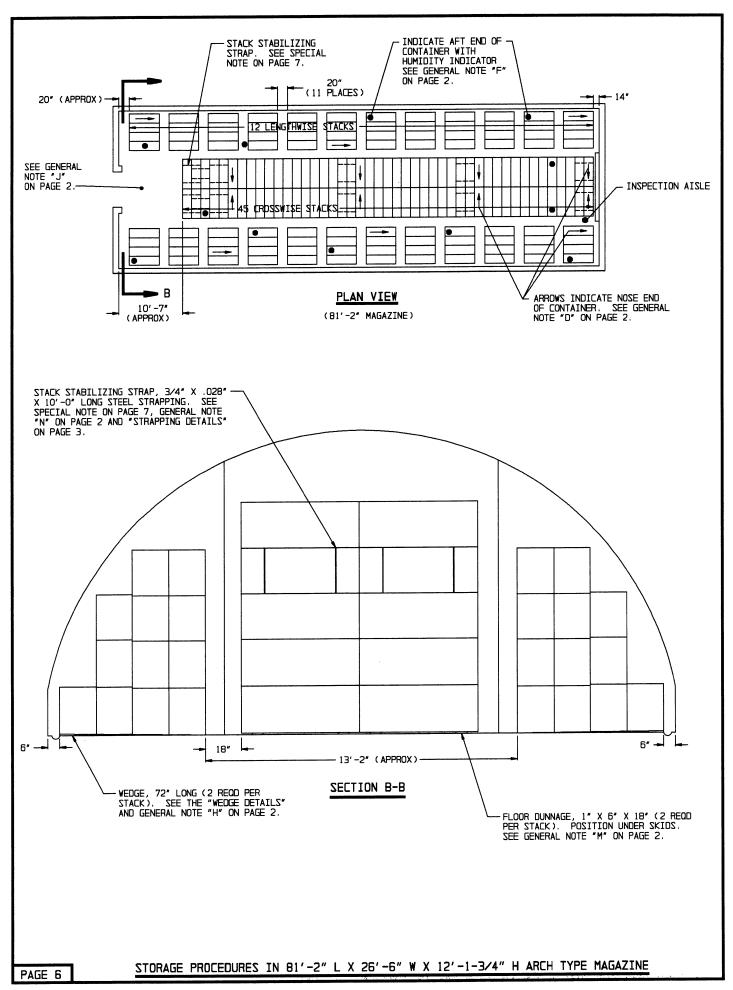


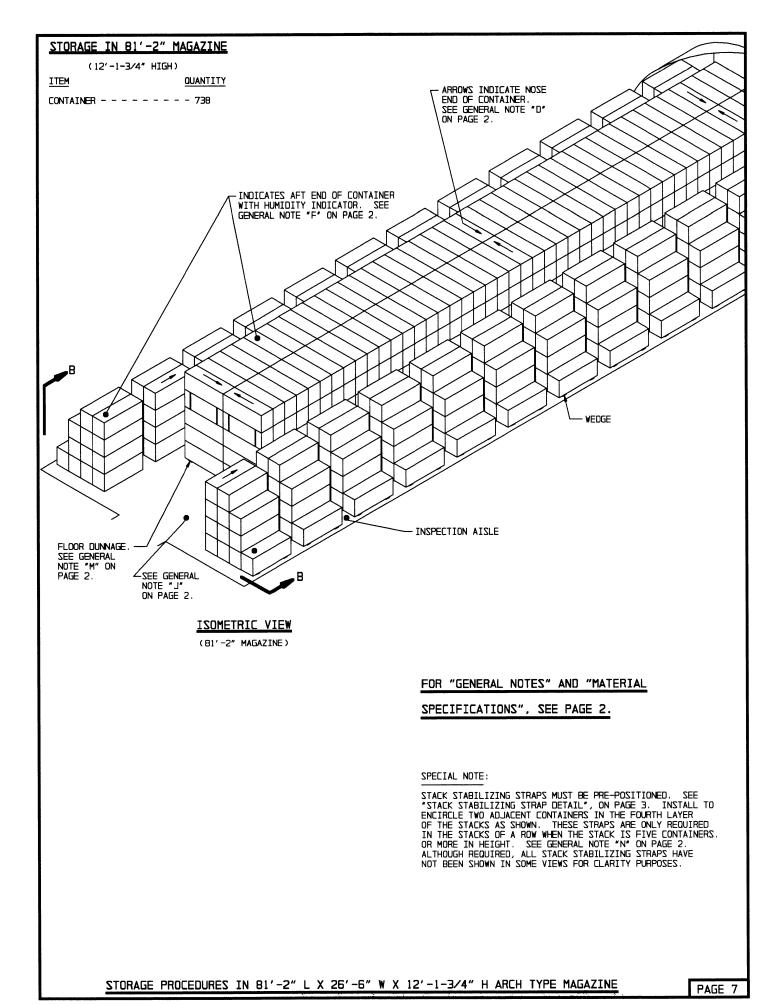


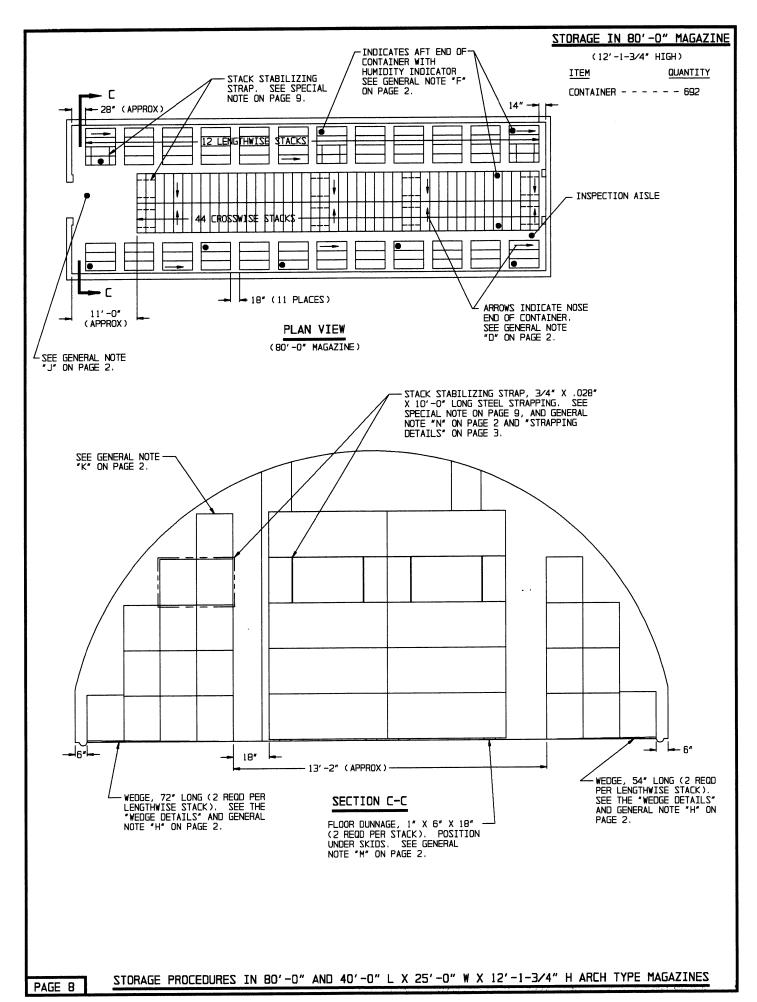
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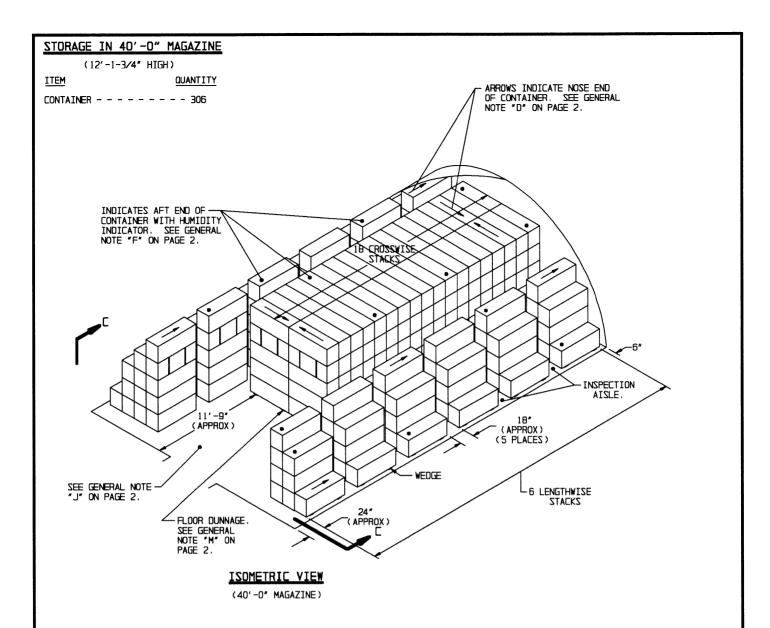
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STORAGE PROCEDURES IN 81'-0", 60'-8" AND 40'-4" L X 26'-6" W X 12'-9" H IGLOO MAGAZINES





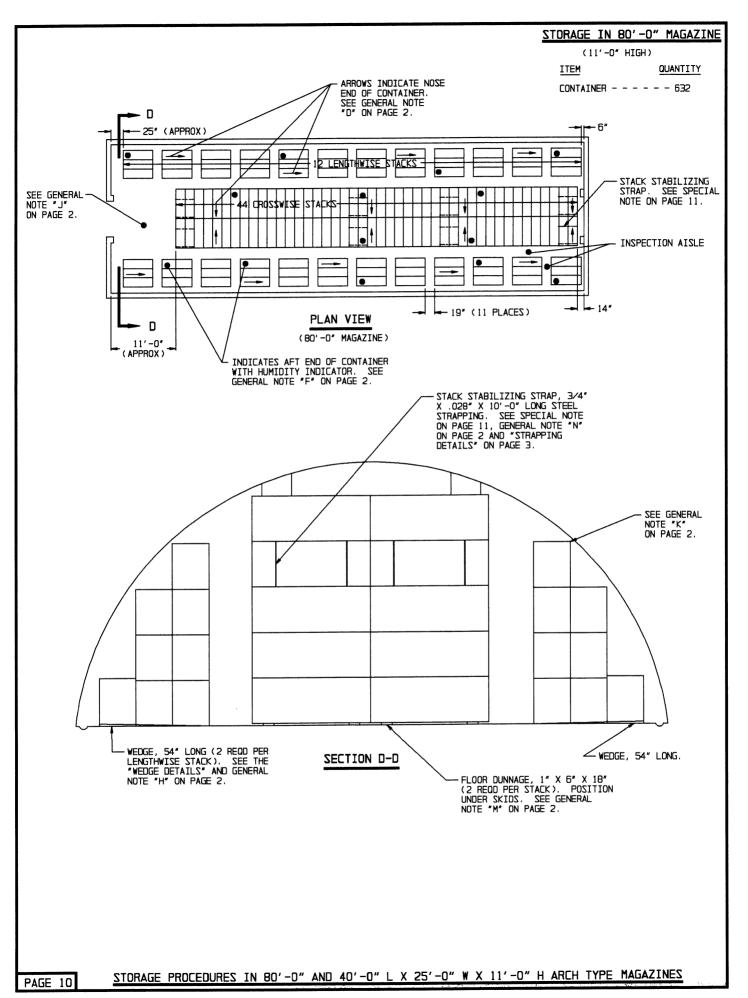


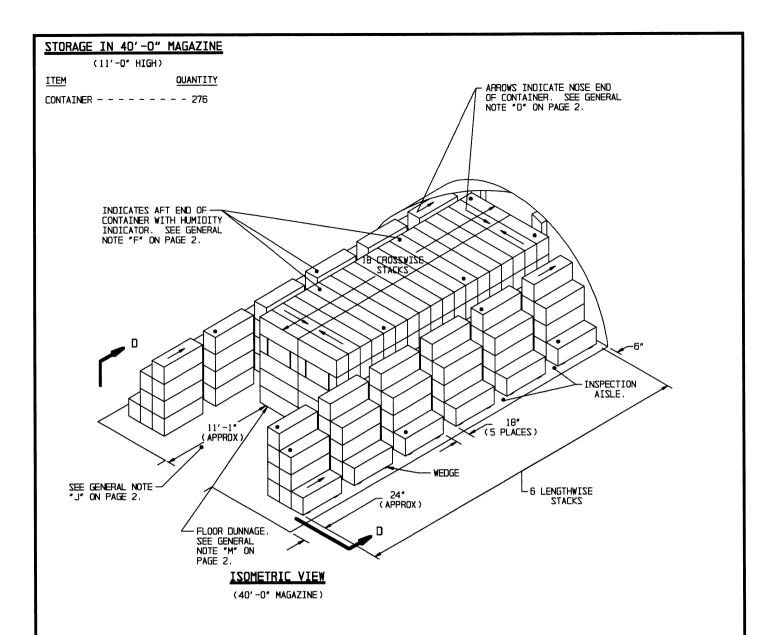


FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

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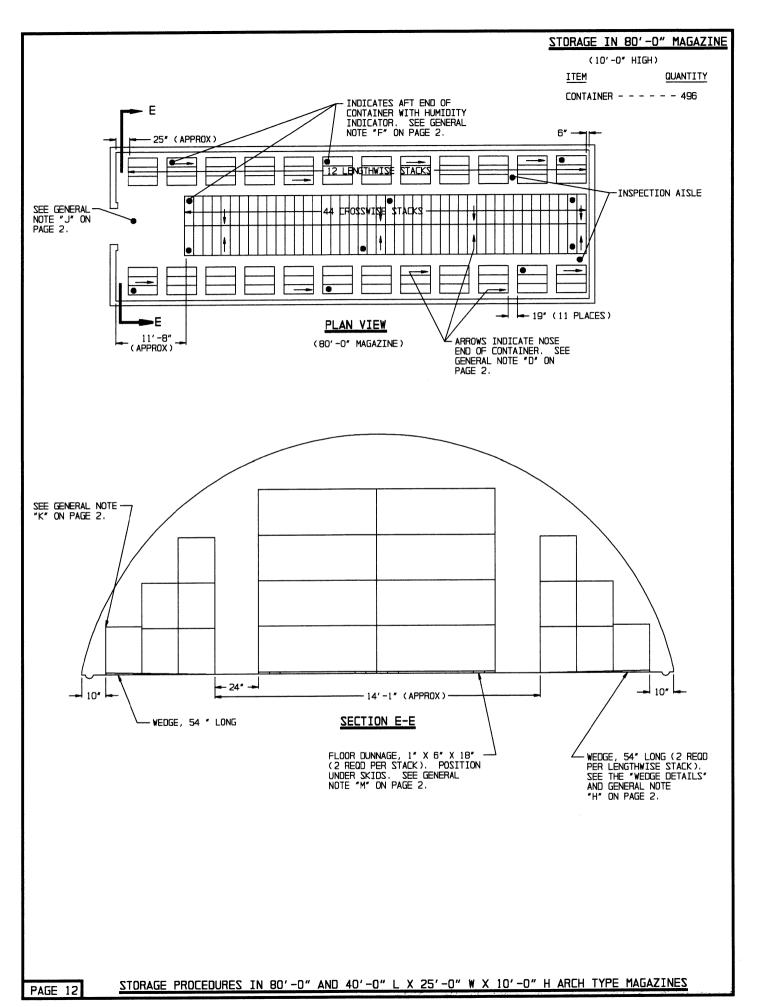




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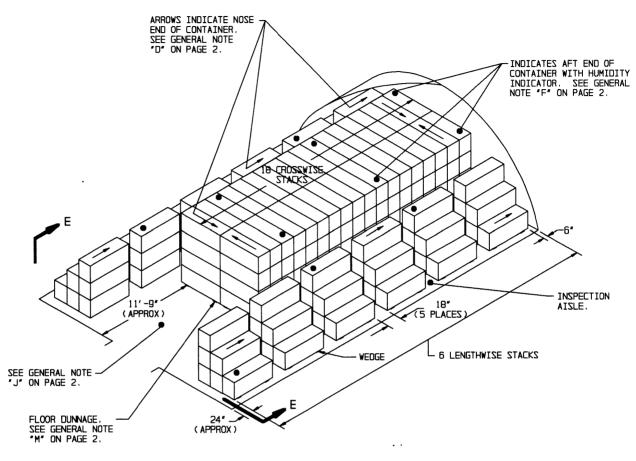


STORAGE IN 40'-0" MAGAZINE

ITEM

QUANTITY

CONTAINER - - - - - - - 216



ISOMETRIC VIEW

(40'-0" MAGAZINE)

FOR "GENERAL NOTES" AND "MATERIAL

SPECIFICATIONS", SEE PAGE 2.

