APPENDIX A

FOR

PALLET RACK

AT

GRISSOM ARB, INDIANA

BUILDING 613

CSN VGR601

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1. GENERAL SCOPE

This appendix establishes the minimum performance, design, fabrication, installation, and test requirements for pallet rack at Grissom ARB, Building 613. The work shall be completed in accordance with this appendix, the Cover Purchase Description (PD), and Air Force (AF) Drawing VGR601-01. This appendix covers all equipment, materials, and labor necessary to complete installation of the system.

2. APPLICABLE DOCUMENTS

Applicable documents shall be in accordance with Section 2 of the Cover PD as well as RMI/ANSI MH16.1 *Industrial Steel Storage Racks* and RMI/ANSI MH26.2 *Design and Testing of Welded Wire Rack Decking.*

3. REQUIREMENTS

3.1. SYSTEM DESCRIPTION

The manufacturer of the pallet rack and decking shall be R-Mark® certified.

3.2. CHARACTERISTICS

Pallet rack shall conform to the following requirements.

3.2.1. CONFIGURATION REQUIREMENTS

Pallet rack shall be located and configured as shown on AF Drawing VGR601-01.

3.2.2. STRUCTURE AND INSTALLATION

- **UPRIGHTS**
  - Capacity as shown on AF Drawing VGR601-01.
  - Capable of supporting fully loaded bays without permanent deformation.
  - Tear drop openings spaced on 2-inch increments for shelf beams.

- **SEISMIC PLATES**
  - Located at bottom of each column, able to sufficiently disperse load.
  - Minimum of 2 punched holes for applicable anchor bolts

- **SHELF BEAMS**
  - Capacity as shown on AF Drawing VGR601-01
  - Teardrop compatible connectors.
  - Attached shelf beam-to-column safety lock.
  - Step type.

- **ROW SPACERS**
  - 6-inch flue space as shown AF Drawing VGR601-01.
  - Top and bottom row spacers shall be installed within 24 inches of the top and bottom respectively.

- **LEVELING SHIMS**
  - Length and width equal to bearing plate.
  - No more than 5 shims used at any one location.
  - No slotted or welded shims.

- **DECKING**
  - R-Mark® compliant.
  - Not exhibit permanent deformation and elastic deformation shall not exceed .56 percent of the unsupported span. The following formula shall be used to determine the deflection amount:
    *Deflection = [(M1 - M2) / shelf beam length] * 100*
  - Capable of supporting rack capacity.
  - Galvanized.
  - External waterfall to interface with step beam.
  - Support beams permanently attached to decking.
  - Grid size as shown on AF Drawing VGR601-01

- **ANCHORING**
  - Rigid freestanding structure.
  - Installed as per manufacturers instructions for the geographic location.

- **ASSEMBLY**
  - Shall be straight and square.
  - Horizontal members level to within 1/8 inch over 10 feet.
  - Vertical members plumb to within 1/2 inch over 10 feet.

- **ROW MARKERS**
  - Two card holders installed on the end of each rack section for row identification.
  - Card holders capable of holding and shielding 8.5 inch by 11 inch printed labels from debris.
  - Securely mounted between 7 feet and 10 feet from the floor.

- **COLOR**
  - Shall be as specified by COTR

4. QUALITY ASSURANCE PROVISIONS

4.1. INSPECTION

The pallet rack shall be inspected to verify that it meets all the requirements of sections 1, 2, and 3 of this appendix and the Cover PD. These inspections shall be completed as part of the system checkout test and again as a part of the quality conformance test.

4.2. TESTS

The following tests shall be performed on the system as part of the system checkout test and again as a part of the quality conformance test.

No.	Description	Result
1.	Maximum loads shall be placed randomly in the rack system. After not less than four hours, the test loads shall be removed and the rack examined for signs of deformation. If any component of the system exhibits plastic or elastic deformation outside of the approved parameters, the system fails the test.	☐ Pass ☐ Fail
2.	The shelf-to-column safety lock shall be tested at a minimum of ten random locations. Personnel shall attempt to separate empty shelf beams from the column without disabling the shelf-to-beam safety lock. If a shelf separates from a column then the system fails the test.	☐ Pass ☐ Fail

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