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UNCLASSIFIED TITLE: ACCEPTANCE REQUIREMENTS FOR REAL PROPERTY AND REAL PROPERTY INSTALLED EQUIPMENT - MINUTEMAN (SNSA) - YAFB

MODEL NO. WS-133A

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PREPARED BY: H. Furyman 1-2061

SUPERVISED BY: F. S. Joseph

APPROVED BY: F. T. Hogen 7-28-61

CLASS. & DISTR. APPROVED BY: C. T. Drakeley 7-28-61

NO. OF PAGES: ___________ (EXCLUDING TITLE AND REVISION AND ADDITION PAGES.)
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log of Changes</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
</tr>
<tr>
<td>Distribution List</td>
</tr>
<tr>
<td>Definitions and Abbreviations</td>
</tr>
<tr>
<td>Applicable Documents</td>
</tr>
<tr>
<td>1.0 SCOPE</td>
</tr>
<tr>
<td>2.0 GENERAL ACCEPTANCE</td>
</tr>
<tr>
<td>3.0 GENERAL RF AND RPJE ACCEPTANCE REQUIREMENTS</td>
</tr>
<tr>
<td>4.0 ORT/OYL - MAINTENANCE BUILDING (SMSA) ACCEPTANCE REQUIREMENTS</td>
</tr>
<tr>
<td>4.1 List of Facilities</td>
</tr>
<tr>
<td>4.2 List of RPJE</td>
</tr>
<tr>
<td>4.3 Environmental Control System Acceptance Requirements</td>
</tr>
<tr>
<td>4.4 Central Compressed Air and Distribution System Acceptance Requirements</td>
</tr>
<tr>
<td>4.5 Monorail Acceptance Requirements</td>
</tr>
<tr>
<td>4.6 Overhead Traveling Crane Acceptance Requirements</td>
</tr>
<tr>
<td>4.7 Commercial Power and Distribution Equipment Acceptance Requirements</td>
</tr>
<tr>
<td>A Appendix</td>
</tr>
<tr>
<td>A.1 Reference Drawings</td>
</tr>
<tr>
<td>Abbreviation</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>AFW</td>
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<tr>
<td>AGE</td>
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<tr>
<td>CTL</td>
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<tr>
<td>CTLI</td>
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<td>G &amp; C</td>
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</tbody>
</table>
APPLICABLE DOCUMENTS

CM-07-59-2617A  Electrical Interference Control Requirement for Minuteman (WS-133A)

CM-42-52-73  Electrical Grounding Criteria for Minuteman (WS-133A)

S-133-30-54  Facility Design Criteria of the ORT/CTL Maintenance Building (SNSA) - Vandenberg Air Force Base

S-133-11  Minuteman Model Specifications National Electrical Code, Latest Issue

APEM Exhibit 56-20A  "Gas, Fluid, and Electrical Conduit Line Identification for use in Missile and Space System" (Dated Oct.12, 1960)
1.0 SCOPE

This document specifies the acceptance requirements for completely installed systems and items of equipment of the RP and RPIE within the ORT/CTL Maintenance Building at Vandenberg Air Force Base.
2.0 GENERAL ACCEPTANCE

2.1 Acceptance of the RP and RPIE is premised upon the following:

1. New buildings shall have been completed to meet facility requirements as specified in BC Document D2-7272.

2.2 All dimensional requirements of the equipment shall have passed normal inspection.

2.3 The Base RP and RPIE are acceptable when acceptance demonstrations and inspections have been completed and all RP and RPIE have met the requirements as specified herein.

2.4 All Functional Test Reports and Inspection Reports pertaining to Real Property and Real Property Installed Equipment shall be available at the start of validation procedures.

2.5 All Validation Procedure items for which a checklist item is provided shall have all test procedures and results, including preliminary checkout data, recorded on a standardized test data form.
3.0 GENERAL RP AND RPIE ACCEPTANCE REQUIREMENTS

3.1 Services, such as utilities, communications, security, environmental control and building maintenance shall be provided by the government during the RP and RPIE testing period.

3.2 Prior to tests, all indicating, measuring, regulating, or generating devices used for testing purposes, shall have been calibrated in accordance with the manufacturers specifications for calibration of new instruments, before and after performance of each test.

3.3 Prior to the acceptance testing specified in the following sections, it shall be demonstrated that the base web counterpoise and building grounding systems comply with the requirements as specified in STL Document GM 42.52-73 "Electrical Grounding Criteria for Minuteman (WS-133A)" and STL Specification S-133-30-54 (BC Document D2-7272).

3.4 It shall be demonstrated that all RPIE within the Electronic Maintenance Area, Measurements Area and the Encoder-Decoder Area shall comply with the requirements specified in GM-07-59-2617A, "Electrical Interference Control Requirement for Minuteman (WS-133A)".
3.5 The SNSA RP and RPIE shall have been provided in accordance with the requirements as specified in the STL Technical Criteria Document 5-133-30-51 (BAC Document D2-7272).

3.5.1 The SNSA RP and RPIE shall have been inspected to assure compliance with drawings and specifications. Acceptance demonstrations need to be performed only on items for which acceptance requirements are specified in this document.

3.6 During the tests specified herein, all electrical motors shall operate at rated voltage, at rated RPM and at a current not to exceed the nameplate current, within a power regulation of ± 5%.

3.7 Electro-interference or interference on instrumentation ground wire where entering the building shall not exceed that specified in STL Document GN-07-59-2617A, with power on and all RPIE equipment operating.
4.0  ORT/CTL = MAINTENANCE BUILDING (MBA) = ACCEPTANCE REQUIREMENTS

The ORT/CTL Maintenance Areas will support the organizational level and the field level maintenance for Operating Ground Equipment (ORGE), Maintenance Ground Equipment (MGE), Real Property Installed Equipment and the Combat Training Launch Instrumentation System.

4.1 The ORT/CTL Maintenance Building consists of the following maintenance facilities:
1. Electronic Maintenance
2. Measurements Shop
3. Encoder-Decoder
4. Material Control
5. Electrical-Mechanical Maintenance
6. Special Purpose Vehicle Maintenance
7. Airlock and Cleaning

4.2 The following RFE is installed in the ORT/CTL Maintenance Building:
1. Environmental Control System
2. Compressed Air System
3. Monorail in the Electronic Maintenance Area
4. Overhead Traveling Crane in the Special Purpose Vehicle Maintenance Area.
5. Commercial Power and Distribution Equipment
4.3 Environmental Control System Acceptance Requirements

The environmental control system in the building may consist of one or several subsystems required to control air temperature, humidity, and air cleanliness and to cool electronic equipment as specified in STL document 5-133-30-54 (D2-7272).

4.3.1 The environmental control system shall provide one of the following classes of environmental control in each area of the ORT/CTL Maintenance Building.

1. Air Quantities:
   Air quantities of the various ventilation and for air conditioning systems shall be balanced to within ± 5% of design quantities.

2. Class I
   Temperature: 72°F ± 2°F
   Relative Humidity: 60% (maximum)
   Cleanliness: Air filters shall have an overall average efficiency of not less than 85% on atmospheric dust as measured by the Air Filter Institute (AFI) Dust Spot Test Method.

3. Class III
   Summer: Adequate ventilation.
   Winter: 70°F (Nominal)

4.3.2 The environmental control system shall be operated and tested to determine that all components produce satisfactory results and conform to the following requirements:
4.3.2.1 Maintain a Class I environment as defined in Paragraph 4.3.1 in the following areas:
1. Electronic Maintenance
2. Measurements Shop
3. Encoder-Decoder
4. Material Control
5. Airlock

4.3.2.2 Maintain a Class III environment as defined in paragraph 4.3.1 in the following areas:
1. Electrical - Mechanical
2. Tool Crib
3. Cleaning

4.3.2.3 Provide cooling air to electronic equipment in the Electronic Maintenance Area per the following requirements:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>No. of Outlets</th>
<th>Req'd. CFM</th>
<th>Temp. F</th>
<th>Humidity</th>
<th>Pressure at Equipment, Inlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>B3-72</td>
<td>2</td>
<td>1060</td>
<td>61 ± 2</td>
<td>60%</td>
<td>4.3 in. W.C.</td>
</tr>
<tr>
<td>C 89A</td>
<td>1</td>
<td>550</td>
<td>61 ± 2</td>
<td>60%</td>
<td>.7</td>
</tr>
<tr>
<td>C 90B</td>
<td>2</td>
<td>1008</td>
<td>61 ± 2</td>
<td>60%</td>
<td>.7</td>
</tr>
<tr>
<td>C 91B</td>
<td>2</td>
<td>690</td>
<td>61 ± 2</td>
<td>60%</td>
<td>.7</td>
</tr>
</tbody>
</table>

For equipment and outlet locations see Figure A.1.1.

All cooling air to be filtered per Class I environment.
Central Compressed Air and Distribution System
Acceptance Requirements

4.4.1 The function of this system is to supply compressed air, from 70 to 110 psig, in the ORT/CTL Maintenance Building, to the following areas:
1. Electronic Maintenance
2. Measurements Shop
3. Cleaning Area
4. Encoder-Decoder
5. Tool Crib
6. Electrical - Mechanical
7. Special Purpose Vehicle Maintenance

4.4.2 The purpose of the compressed air system is to supply high pressure air for operating hand tools and low pressure air for cleaning purposes.

The system consists of the following:
1. Compressor
2. Main Storage Tank
3. Distribution Lines
4. Pressure Regulators for Regulating Outflow. For location of compressed air outlets and regulators, see Figure A.1.2.
It shall be demonstrated that this equipment has the ability to accomplish the following, in accordance with the design requirements:

1. Maintain pressure in the main storage tank of 100 psig minimum.


3. Maintain air cleanliness that is compatible with that specified in paragraph 4.3.1 for a Class I environmental control within the following areas:
   - Electronic Maintenance
   - Measurements Shop
   - Encoder-Decoder
   - Material Control

4. Limit the moisture content of the compressed air to a dew point of -65°F.

System pressure tested in accordance with applicable codes and contract specifications.
4.5 Monorail Acceptance Requirements

The monorail in the Electronic Maintenance Area is required to provide a capability for hoisting and transporting the N 10 A Auto-Navigator (OMC Section) and the OTLI Section. For location of monorail see Figure A.1.3.

4.5.1 It shall be demonstrated that the monorail has the ability to accomplish the following:

1. Operate freely through the entire range of travel under a full load of 1500 pounds.

2. Provide a minimum lift (vertical travel of hook) of 11' 0".
4.6 Overhead Traveling Crane Acceptance Requirements

The overhead traveling crane in the Special Purpose Vehicle Maintenance area is required to provide a capability for hoisting T/E hydraulic actuators and equipment pertinent to the Mechanical - Electrical area. For location see Figure A.1.4.

4.6.1 It shall be demonstrated that the overhead traveling crane has the ability to accomplish the following:

1. Operate freely through the entire range of travel under a full load of 4½ tons.

2. Provide a minimum lift (vertical travel of hook) of 17' 0" with a hoist speed capability of 25 feet per minute.

3. Completely tested in accordance with the contract specifications.

4.7 Commercial Power and Distribution Equipment Acceptance Requirements

The commercial power and distribution shall provide 120/208 volts, 3 phase, 4 wire, 60 cycle electrical power to facility equipment.

4.7.1 The commercial power and distribution equipment in the ORT/CTL Maintenance Building shall be tested and shall conform to the National Electrical code. The commercial power and distribution equipment shall consist of the following:

1. Commercial Power

2. Distribution Panel

3. Circuit Breakers

4. Associated Wiring
4.7.2 The commercial power and distribution equipment shall be operated and tested to determine that all components conform to the following requirements as specified in the Design Criteria Specification S-133-30-54 (BAC D2-7272):

1. Provide regulated power at full load into the building with a voltage fluctuation not to exceed ± 10%.

2. Properly ground all neutrals to the commercial power grounding system (installed as part of Real Property) tie point in accordance with the National Electrical Code and Design Criteria Specification S-133-30-54 (BAC Document D2-7272).
NOTE:
DIMENSIONS ARE APPROXIMATE AND SUBJECT TO NORMAL CONSTRUCTION TOLERANCES.